

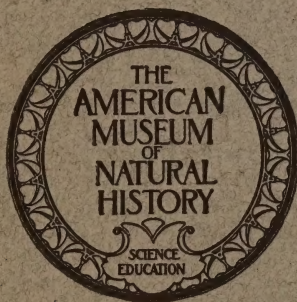
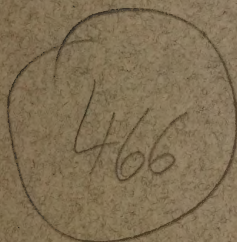
ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM
OF NATURAL HISTORY

VOL. XV, PART II

THE HORSE AND THE DOG IN HIDATSA CULTURE.

BY

GILBERT L. WILSON.



AMERICAN MUSEUM PRESS
NEW YORK
1924

THE AMERICAN MUSEUM OF NATURAL HISTORY

PUBLICATIONS IN ANTHROPOLOGY

In 1906 the present series of Anthropological Papers was authorized by the Trustees of the Museum to record the results of research conducted by the Department of Anthropology. The series comprises octavo volumes of about 350 pages each, issued in parts at irregular intervals. Previous to 1906 articles devoted to anthropological subjects appeared as occasional papers in the Bulletin and also in the Memoir series of the Museum. Of the Anthropological Papers 19 volumes have been completed and 8 volumes have been issued in part. A complete list of these publications with prices will be furnished when requested. All communications should be addressed to the Librarian of the Museum.

The current volume is:—

VOLUME XV.

- I. Pueblo Ruins of the Galisteo Basin, New Mexico. By N. C. Nelson. Pp. 1-124, 4 plates, 13 text figures, 1 map, and 7 plans. 1914. Price, \$.75.
- II. The Horse and the Dog in Hidatsa Culture. By Gilbert L. Wilson. Pp. 125-311, and 127 text figures. 1924. Price, \$1.75.
- III. (In press.)

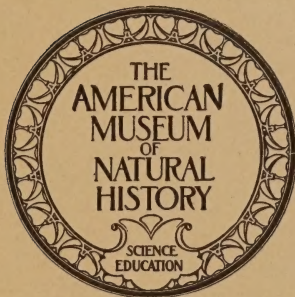
ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM
OF NATURAL HISTORY

VOL. XV, PART II

THE HORSE AND THE DOG IN HIDATSA CULTURE.

BY

GILBERT L. WILSON.



AMERICAN MUSEUM PRESS
NEW YORK
1924

THE HORSE AND THE DOG IN HIDATSA CULTURE.

By GILBERT L. WILSON.

EDITOR'S NOTE.

During the interval 1908-1918, Doctor Gilbert L. Wilson spent from one to two months of each year among the Hidatsa Indians, collecting for the Museum and gathering information as to their culture. The accompanying pages contain only that portion of his data bearing upon, or associated with, the dog and horse culture-complexes of the tribe. In all his work Doctor Wilson has looked upon the narrative, and the demonstrations accompanying it, as true data, to be set down as they came. Further, his method was to control the narrators as little as possible, merely holding them to the description of actual personal experiences. In this way he has succeeded in recording detailed cross-sections of Hidatsa culture. Since some of these field records approach ideal completeness and are, therefore, unique as data, it was thought best to publish them in full. Attention is called to this, because otherwise the reader may find the arrangement a little confusing. Yet, if he is interested solely in special topics, as dog travois, or bull-boats, the table of contents, and ultimately, the index at the end of the volume, will pilot him to the desired paragraphs.

This paper, then, attempts to present all the narrators knew concerning the place of the dog and the horse in the culture of their tribe. It is not an abstract presentation, but a delineation of the many phases of culture closely associated with the care and use of these animals. Thus, it was inevitable that a great deal should be said about methods of camping and the order of the march, the technique of horse and dog trap-pings, etc. But it is rather for the picture these detailed narratives give of the place and function of these animals in Indian culture, that the author has chosen this form of presentation.

Another unique feature of the paper is the drawing, sketches made by Goodbird, the son of Buffalo-bird-woman, but in each case under the eye of the narrator. These also are literally reproduced by tracings, for which acknowledgment should be made to Mr. F. N. Wilson.

The importance of this study, however, lies in that over and above its factual contribution, it gives new light on culture processes. The dog came to the Hidatsa in prehistoric time, together with an elaborate culture-complex. Then, with the coming of the white man, the horse was passed on to this tribe. With the horse came a culture-complex of Old World origin, to displace the dog-complex. Just how the adjustment of the latter complex to the former was made, could be little more than guessed from the available data, but now we have in hand a large part

of the story. It is possible to go through these two complexes point by point and thus determine in just how far the horse was fitted into the old dog culture and in turn what the horse brought with him from his Old World setting. When such a study is made and the available data for other Indian tribes re-interpreted, we shall at least know the history of one set of culture-complexes. It is as a contribution to this end that the author offers these narratives.

C. W.

PREFACE

The Hidatsa, or Gros Ventre, called Minitari by the Mandan, are a Siouan tribe speaking a dialect akin to that of the Crow. Tradition has it that the founders of the tribe, happily climbing a grapevine, emerged from the waters of Devils Lake, in what is now North Dakota, and that, migrating west, they met the Mandan at the mouth of the Heart River. It is likely that enemies forced the Hidatsa to migrate and that they were only too glad to form an alliance with the Mandan, who generously aided them to build villages near their own. How long the two tribes dwelt at the mouth of the Heart is not known. They were found there with the Arikara about 1765; in 1804, Lewis and Clark found them in the Five Villages at the mouth of the Knife River.

It is probable that the culture characteristics of the two tribes is of Mandan origin. Certainly, the traditions of both tribes agree that the Hidatsa knew nothing of corn culture until taught by the Mandan. They were apt pupils; in the sign language the sign for "Hidatsa" is a motion as of shelling corn from an ear.

Smallpox nearly exterminated the Mandan in 1837-8 and reduced the Hidatsa to about five hundred persons. The remnants of the tribes united and in 1845 moved up the Missouri and built a village of earth-lodges at Like-a-fishhook bend, close to the trading post of old Fort Berthold. They were joined by the Arikara in 1862 and neighboring lands were set apart as a reservation for the three tribes. The families began settling on allotments about 1885, and their picturesque village of earth-lodges was abandoned.

The Mandan and Hidatsa have intermarried much. By custom, children speak the language of the mother, but the dialects of both tribes are understood by nearly all. Few of either tribe have married Arikara.

With his brother, Frederick N. Wilson, an artist, the writer first visited the Hidatsa in 1906, enjoying a month's camping while his brother made sketches for a volume of myths. At Independence, they made the acquaintance of Edward Goodbird, his mother Maxidiwiac or Buffalo-bird-woman, and the latter's brother, Wolf-chief. A friendship was thus begun which the writer of this paper sincerely values.

In 1908, the writer and his brother were sent by Dr. Clark Wissler, Curator of Anthropology, American Museum of Natural History, to begin cultural studies among the Hidatsa. This work, generously supported by the Museum, was continued each year in summer vacations, until the autumn of 1918. In 1910, the writer was admitted as a student in the graduate school of the University of Minnesota, majoring in

anthropology; and during the next six years, he had the valued advice and guidance of Dr. Albert E. Jenks. The writer, then, is a student of anthropology; but it has impressed him that the published studies in this field usually present the arts and culture of primitive man as seen through civilized eyes. Is not anthropology properly a study of man himself, and is not even the material culture of primitive man chiefly valuable to us as interpreting the man himself, his philosophy, or his soul? Should we not seek to know how every art, every material complex of his culture is seen by primitive man himself, how it is proportioned in his thinking, and what superstitions and interpretations he gives to it?

Such is the aim of the accompanying paper and of others that may be published later. To the Hidatsa, the dog, for example, was an important beast of burden and his care and management was left to women. The writer has not sought the materials of his study of the dog from multiple sources and grouped and classified them in the more usual way. Rather, he has sought the viewpoint, the philosophy, of the dog's human mistress. How did Buffalo-bird-woman train and care for her dogs; how did she value them, and how use them in hunt, journey, and domestic service? How much of the dog complex came into one Hidatsa woman's life?

Circumstances favored the writer's labors. Independence, the home of his Indian friends, is an isolated point on the reservation, removed from white settlements. The writer boarded with Goodbird's family, sleeping at night on the floor of the little chapel near by. Thus admitted into their home, the writer saw the reserve of an Indian family toward a stranger yield to a helpful and sympathetic understanding of his, to them, rather strange labors; labors, which without the hearty coöperation of interpreter and informants, would have been impossible.

A few words should be said of these faithful friends. Maxídiwiaë, or Buffalo-bird-woman, is a daughter of Small-ankle, an able and progressive leader of the Hidatsa in the trying time of the tribe's removal to what is now Fort Berthold Reservation. She was born about corn harvest, in the year, which by Butterfly's winter count, began in November, the Moon-of-yellow-leaves, 1840. She is conservative, holding to native beliefs and sighing for the good old times; but she realizes that the young must adopt civilized ways or perish. She speaks no English, but she has a quick intelligence and a memory that is marvelous. Her patience and loyal interest in these studies have been invaluable. On a sweltering August day she has dictated for nine hours, never flagging, though often lying prone on the cabin floor when too weary to sit longer in a chair.

Wolf-chief, her brother, was born the summer of 1849. An energetic war leader in his youth, he early saw the value of civilized culture. Though nearly thirty years of age, he attended the first school opened on the reservation, and even hired a white man to live in his cabin and teach him to read. He later opened a small trading store which he still manages. He is unable to carry on a conversation in English, but he has learned to read and write sufficiently to keep his rather simple trading accounts. He is now a Christian, of a simple, sturdy faith, respected by whites and Indians. Wolf-chief is a reliable authority in matters pertaining to men's customs and occupations, and, unlike so many of his tribesmen, does not fear to give information of native religious beliefs.

Edward Goodbird, or Tsakákasakic, the writer's interpreter, is a son of Maxídiwíac, born about November, 1869. Goodbird was one of the first of the reservation children sent to the mission school, and he is now pastor of the Congregational chapel at Independence. He speaks the Hidatsa, Mandan, Dakota, and Crow languages. He understands and reads English; that he speaks it imperfectly is an advantage, as his interpretation is close to the idiom of the informant. Goodbird is a natural student and has the rarer gift of being an artist. In his youth he was often employed to paint war records, practising what was almost a profession among the Hidatsa. His sketches, and they are many, are spirited but typically Indian. Unless otherwise stated, drawings in this paper are by Goodbird, drawn under the informant's eye and approved by him.

In the following pages the writer has sought to preserve all narratives as the informants gave them, merely arranging materials and putting Goodbird's Indian-English into proper idiom. Bits of philosophy, personal and humorous observations are as they fell from the informants' lips. The writer has sincerely endeavored to add nothing of his own.

Native Hidatsa words in this paper are written in the following alphabet.

a	as	a	in	what
e	"	ai	"	air
i	"	i	"	pique
o	"	o	"	tone
ä	"	a	"	father
ë	"	ey	"	they
ĩ	"	i	"	machine
a	"	u	"	hut

ě as e in met

ĩ “ i “ tin

e “ sh “ in shun

x nearly like Spanish j as in pajaro

j nearly like German ch as in mich

z like z in azure

b, d, h, k, l, m, n, p, r, s, t, w, as in English

w is interchangeable with m, as is also the less used b.

n, l, and the less used r are interchangeable with d

An apostrophe (') marks a short, nearly inaudible breathing.

GILBERT L. WILSON

CONTENTS.

	PAGE.
EDITOR'S NOTE	127
PREFACE	129
HORSE CULTURE	141
ORIGIN	141
IDEAS CONCERNING HORSES	142
THE COLT	145
CASTRATION	146
STALLIONS	149
TRAINING	150
To Swim	151
For War	152
Parading	153
To Turn and Stop	153
To Leap an Enemy	154
SUMMER PASTURING AND HERDING	155
Corral under the Drying Stage	156
A Typical Summer Day's Herding for Boys	157
WINTER CARE OF HORSES	172
Winter Lodges and Drying Stages	173
Number of Horses and Lodges	174
Feeding Cottonwood Bark	175
Feeding Dry Grass	176
Feeding Hay and Bark	178
Winter Pasturing	178
Watering the Horses	178
Small-ankle's Narrative	179
Feeding Corn	180
CARE OF HORSES ON THE WARPATH	181
PROTECTING PACK HORSES FROM MAGPIES	181
HORSEGEAR	182
Bridles	182
Lariats	185
Hobbles	189
Saddles	190
Saddle Skins	192
Carrying Tipi Poles	193
The Travois	194
NAMES FOR HORSES	194
Our Family Herd	194
Other Names	194
Age Names	195
DOG CULTURE	196
ORIGIN	198
BUFFALO-BIRD-WOMAN'S NARRATIVE	199

	PAGE.
THE PUPPY	199
CASTRATION	201
FEEDING	201
KENNELS	202
THE VILLAGE DOGS	204
DOGS AS PROPERTY	206
GATHERING WOOD	206
COLLECTING WOOD FROM THE RIVER.	209
FETCHING FIREWOOD AND GAME BY BULL-BOAT	209
TRAINING A DOG	211
NAMES AND DESCRIPTIONS OF OUR DOGS	212
CHILDREN RIDE ON A DOG TRAVOIS	216
MAKING A DOG TRAVOIS	216
DOG TRAVOIS SHELTER TENT	221
ADDITIONAL INFORMATION CONCERNING DOGS.	225
Dragging Tent Poles	225
Carrying Water for Dogs	225
Bringing in Meat by Travois	226
The Leader	228
Signals for Calling Dogs	228
Selecting Dogs	229
A HUNT MADE AFOOT WITH DOGS	231
The Hunting Party	231
Dress	232
The First Camp	235
Roasting Meat	235
The March	236
The Second Camp	237
Blood Broth	237
Blood Pudding	239
Ownership of Slaughtered Game	240
Story Telling	240
Third Camp	240
Fourth Camp	240
Meals	240
Feeding the Dogs	241
Dogs crossing a Creek	241
Unloading the Dogs	241
Water for Dogs	243
The Tent	243
Pipes	244
The Campfire	244
The Beds	244
Arrangement of Baggage	244
The Dogs' Sleeping Place	244
Leaders	245
Buffalo Hunting on Deep Creek	245
Cuts of Meat.	246

	PAGE.
Flaying of Hides	246
The Choice Pieces	247
How the Cuts were Slung	247
The Fifth Camp	248
Ferrying over the Missouri by Bull-Boat	248
Killing and Butchering	249
Transporting Meat with Dogs	251
How We Traveled with Bull-Boats	253
Rescue of Awa-hitsi-kuwac	259
Arrival at the Village	261
A TRIBAL HUNT TO THE YELLOWSTONE IN AUTUMN	263
Choosing a Leader	263
Vehicles	264
Order of March	264
Our Camp on the Sandbar	266
Turning a Tipi	266
Anchoring the Tipi	267
The Fireplace	268
The Fire	268
Use of the Heart Skin	269
Goodbird's Birth	269
Corn Mortars.	270
Crossing the River	271
Pack Animals and their Loads	272
The First Mule	274
The Travois	275
The Bull-Boat	276
The Second Mule	277
The Ponies	278
The Eight-Pole Pony, Lashing Tent Poles	278
Tying up a Tipi Cover	278
Other Horses, Saddle, Stirrup and Method of Riding	279
Dogs and Packs	281
The First Dog	281
Dog Travois	281
Dog Travois Loads	283
Bull-Boats	285
How Bull-Boats were borne on the March	285
By Travois and Horseback with my Babe	287
Occupants of a Tent, Names and Relationship	288
The Mandan Tent Tie	289
Our Tent, Construction, and Poles	291
Naming Goodbird	294
Descending the Missouri in Bull-Boats	294
Goodbird is nearly Drowned	297
WOLF-CHIEF'S HUNT WITH DOG AND TRAVOIS	299
Horses and their Equipment	299
The Dog and Travois	299

	PAGE.
Weapons and Ammunition	299
Snowblindness	300
In Camp	300
Setting up a Tent	300
Hunting Badgers	300
The Evening Meal	301
Watering the Horses	301
Interior Arrangement in the Tent	301
Cooking Bones	301
Mushrooms	302
Treatment for Eyes	302
Capturing and Eating Porcupines	302
The Smoke Offering	304
The Buffalo Hunt	304
Butchering	307
The Tent Collapses in a Snowstorm	307
The Return Trip	310
The Feast	310

ILLUSTRATIONS.

TEXT FIGURES.

	PAGE.
1. The Hidatsa Village in 1879	143
2. A Colt tied for Castration	148
3. A food-filled Heart Skin tied to the Belt with String	158
4. Method of tying a Halter	158
5. Carrying a Package of Maize Ears tied to the Elbow	158
6. Diagram of Interior of Earth-Lodge, showing Position of Corrals	160
7. A Bow and Quiver Case in one Piece, showing Method of Carrying	161
8. Arrows: <i>a</i> , iron-headed; <i>b</i> , pointed wooden shafts; <i>c</i> , blunt-headed.	161
9. Guiding a Horse with a Halter	161
10. Riding Horses	161
11. A Snare set in a Gopher Hole	167
12. A Stick with a Snare bound to it set in a Gopher Hole	167
13. Noose tied in a Lariat for a Gopher Snare	167
14. Sketch of a Gopher, with Skewer thrust through it, preparatory to roasting over a Fire	167
15. The Foundation for making a Bale of Grass	177
16-17. Obverse and Reverse of a Bale of Grass, showing Method of Tying	177
18. Goodbird's Sketch of a Horse with feathered Arrowshafts tied to Mane and Tail	183
19. Two Forms of the Racing Bridle	184
20. Another Type of Racing Bridle	184
21. A Two-Rein Bridle used on a Strong-Necked Horse	184
22. Bridle used on a partially broken Pony in racing	184
23. A Makeshift Bridle	184
24. A Bridle used in Swimming and Towing Horses	184
25. Scraping the Hair from a Piece of Green Hide preparatory to making a Lariat	186
26. Softening the Hide	186
27. Another Stage in the Softening Process	186
28. The Completed Lariat	186
29. The Lariat before Trimming	186
30. Rawhide Hobbles fastened with a Wooden Pin.	189
31. A Hobbles for Two Feet, tied only around One	189
32. Looped Ends of Soft Tent Skin Hobbles through which other Hobbles are passed to be carried	189
33. Method of tying a Hobbles of Soft Tent Skin	189
34. <i>a</i> , Pad or Racing Saddle; <i>b</i> , Flaying a Buffalo preliminary to Preparation of a Saddle Skin.	192
35. <i>a</i> , Pack Saddle with Deer Horn Frame; <i>b</i> , Transporting a Tipi Cover and Poles	192
36. <i>a</i> , Holding a Puppy over the Smoke before its First Feeding; <i>b</i> , A Dog Kennel; <i>c</i> , Sketch of the Frame of a Second Type of Kennel	203
37. Wolf-chief's Model of the Frame of a Puppy Kennel	203
38. Hook for hauling in Floating Logs in the Missouri River	209

	PAGE.
39. Sketch showing how Long Sticks of Wood were carried by Women	209
40. A Bull-Boat loaded with Wood being paddled across the Missouri	210
41. Reviving an Unconscious Dog	210
42. A Bob-Tailed Dog	210
43. Goodbird's Sketch of a Dog	210
44. The Dogs run off to fight while Goodbird rides on the Travois	215
45. Travois Poles, showing Manner of Attaching and Tying	215
46. Measuring the Pole which is to form the Rim of the Travois Basket	217
47. Looped Bundle of Rawhide Thong prepared for Netting Travois Basket	217
48. Rim of the Travois Basket held in Shape for drying, by a Rawhide Thong	217
49. The Completed Travois Basket	217
50. The Tie for securing the Load to the Travois Basket	217
51. Frame for Shelter made by setting up Three Dog Travois and adding Several Extra Poles	222
52. The Shelter with Flaps closed for the Night	222
53. The Shelter with Flaps raised to allow Circulation of Air	222
54. Rear of Shelter Tent with Excess of Cover weighted down with a Stone	222
55. Interior Sleeping Arrangements in Travois Shelter Tent	223
56. Diagrammatic Sketch showing Dog dragging Tent Poles lashed to the Fork of the Travois	226
57. Three Travois set up to form a Tent Frame	226
58. A Buffalo Paunch filled with Water, tied with a Buckskin Thong, and skewered with a Stick	226
59. Diagram to show how a Bull-Boat was lashed to a Dog Travois	231
60. Dog carrying a Bull-Boat as a Travois Load	231
61. Type of Unornamented Moccasin worn on the Hunt in Winter	233
62. Moccasin Pattern	233
63. Coat worn by Son-of-a-star during the Hunt Afoot	233
64. A Rocky Mountain Sheepskin Dress decorated with Elkteeth	233
65. Sketch of a Buffalo Robe to show Notches cut out at Shoulder to make it more Symmetrical	234
66. Front and Rear Views to show Proper Method of Wearing a Buffalo Robe	234
67. How Meat was carried into Camp on the Hunter's Back	236
68. Moving Camp: the Order of March	236
69. Sketch of Exposed Buffalo Breast to show where Blood for Broth was obtained	238
70. Sketch of a Buffalo Paunch	238
71. Bag made from part of Paunch and filled with Blood	238
72. Sketch of Buffalo Intestines	238
73. Assisting a Dog to swim a Creek	241
74. Travois stacked for the Night.	242
75. Construction of Bed used in Tent on the Hunt	242
76. The Skin Tent	242
77. Position of the Beds within the Tent	242
78. The Meat Drying Stage	245
79. A Green Hide temporarily folded before Fleshing	247
80. Method of Fastening Meat to Thong of Green Hide for Transportation	247
81. How the Tie shown in Fig. 80 is made	247

	PAGE.
82. Two Pieces of Meat tied together for Transportation	247
83. The Meat Pile and its Contents	250
84. Buffalo-bird-woman and her Husband paddling one Bull-Boat and towing another loaded with Meat and Skins	254
85. Wading into the River to Load a Bull-Boat	254
86. Bull-Boat Paddles decorated with Honor Marks	257
87. Sketch Map of Camp on a Sandbar where Goodbird was born	265
88. Method of driving Stakes into the Ground to hold the Anchor Rope of a Tipi	267
89. Roasting Buffalo Thigh Bones before the Tipi Fire	267
90. Making Fire with a Wooden Drill	267
91. <i>a</i> , Goodbird's Wrapping, as a Baby, on the March; <i>b</i> , the Tie for the Thong Binding the Baby Bundle	267
92. Construction of a Buffalo Skin Corn Mortar	271
93. How a Pestle was carried on a Dog Travois	271
94. Removing the Hair from a Buffalo Hide to make a Corn Mortar	271
95. Construction and Tie for a Buffalo Skin Bag	271
96. Construction of a Double Bag used for Shelled Corn	273
97. Making a Buffalo Calfskin Bag: A, B, skinning; C, inflating; D, drying; E, the completed bag	273
98. Travois, with Bull-Boat, Hoe, and Ax tied to It	275
99. Diagram of Horse Travois	275
100. Travois Thong Tie	275
101. Travois Thong Tie as made when Speed was desired	275
102. Method of lashing Bull-Boat to a Horse Travois	277
103. Form of Old Type of Bull-Boat	277
104. A Saddle with Two Double Bags filled with Provisions hung on It	277
105. Arrangement of Bags and Tent Poles for Transportation	277
106. Methods of folding a Tent Cover in Preparation for loading	279
107. A Tent Cover tied ready for Loading	279
108. Method of Loading and Tying Tent Cover on a Horse	280
109. Sketch of Horse and Two Riders to show Robe tied over Legs of Two Boys in Winter	280
110. Sketch of Horse and Two Riders to show Position of Riders in Summer	280
111. A Dog Travois	282
112. Cross-section of Construction of Pad on Dog Travois	282
113. Position of Straps, Breast Band, etc., when Travois is not in Use	282
114. Buffalo Shoulder Bone used in Skin Dressing	283
115. The Hidatsa Dog	286
116. Travois Harness properly adjusted on a Dog	286
117. Diagram of a Bull-Boat lying Mouth down over the Travois Pole	286
118. Method of fastening a Bull-Boat to a Horse Travois	286
119. Buffalo-bird-woman riding on a Travois	287
120. Buffalo-bird-woman riding a Horse with her Baby tucked inside her Belted Robe	287
121. The Mandan Tipi	290
122. Groundplan of Tent used on Tribal Hunt	290

	PAGE.
123. Diagram showing Method of bunching Bull-Boats to prevent their over- turning in a Strong Current	296
124. Diagram showing the Order of Bull-Boats as they floated down the Missouri	296
125. Flies-low in a Bull-Boat holding the Infant Goodbird in a Storm . . .	298
126. The Tent used during Wolf-chief's Hunt	300
127. An Improvised Cap worn as Protection against Snow	309

HORSE CULTURE.

(Narrative of Wolf-chief)

Wolf-chief, an Hidatsa full-blood, was born about 1849. Consequently, his experience with horses would date from about 1860. The following information was given by him in August, 1913, and supplemented in August, 1918.

ORIGIN.

I know no tradition, or story, telling how we Hidatsa first got horses. Since all our old stories tell only of dogs being used as beasts of burden, I think we must have gotten our first horses rather recently. In the old tales my father used to tell me about our tribe, he always spoke of the use of dogs in transporting the household goods, whenever the Hidatsa went to hunt in the Bad Lands, or moved to the winter village. He never mentioned the use of horses.

One of these stories told of a buffalo hunt up the Little Missouri River, at the time the Hidatsa lived at Five Villages, at the mouth of the Knife River. On this hunt they killed a great many buffalo, dried the meat, and brought it home on travois dragged by dogs. "Had we no horses then?" I asked my father. "I never heard that we had," he answered.

So far as I know, the Mandan also had no horses until about a hundred years ago.¹ There is a tale of a hunt made by the Mandan when they lived near Bird-beak Hill, which bears out this statement. They hunted toward the south where they found a large herd of buffalo, and this they surrounded, both men and women. They held the windward side of the circle open until all the buffalo were within, and then closed it. Then the hunters went inside the circle and shot the buffaloes with arrows. The meat was carried home by dogs. If they had had horses at the time, they would not have surrounded the buffalo herd in this way and would not have brought all the meat home on dogs.

Another time, I have heard, the Mandan hunted to the north. They killed some buffaloes, but there was no timber near by from which to build drying stages. The women cut the meat into long, thin sheets, not

¹The only positive early historical data that have come to our notice for horses among the Village tribes are certain statements of La Verendrye and his sons. They seem to have first visited these villages in 1738, but make no mention of horses there, stating, however, that the tribes living to the immediate south had horses. Yet, in 1741 they seem to have found horses in possession of the Village tribes. Later, J. McDonnell (1793) reports that all the villages were using horses. See this series, vol. 17, part 1, and the *American Anthropologist*, N. S., vol. 16, 1-25.

The zoology of the Indian horse has not been studied, nor do we find good technical descriptions in the early literature. The best early drawings of horses are by Bodmer, who accompanied Maximilian in 1833-1834, but even these seem conventional.

The Editor is responsible for all unsigned footnotes in this paper.

unlike blankets. These were thrown around the bare shoulders and back of the son-in-law of the family and he stood in the sun all day to dry the meat. As his back was turned to the sun, his breast and thighs were in the shade, so the sinews from the buffalo's back were tied about him to hang from his thighs and across his chest. In this way the meat and sinews were dried by evening. The dried meat was carried home on the backs of the men and women in bundles about two feet thick by three feet long. This also seems to be proof that the Mandan did not have horses; if they had had them, they would have brought the meat home on the horses' backs.

My father also told me this story:—

Two birds were once transformed into men. They were born as babes in a Hidatsa village and grew up there. One was named Máhai'tíac, or Big-spring, and the other, Tsakáka-i'tíac, or Big-bird. As the two men, although in human form, were really birds, they had great supernatural power.

Once the two bird men went with a war party to the south with some Assiniboin, who were then our friends. They came to some enemies. One of the Assiniboin also possessed great mystery power and he and the two bird men worked against these enemies. They fought those enemies, who were in a big village, and killed many. Those who were not slain sprang into the Missouri River. The three mystery men returned victorious with the rest of the party. It was about the time of this incident, I think, that the Hidatsa obtained their first pony. I think they got it from the western Cheyenne, whom we called the 'Spotted Arrow Feathers.'

My father also told me that the Assiniboin and some other tribes considered their horses sacred, praying to them and singing sacred horse songs to them. Since we Hidatsa did not follow these Assiniboin customs, he was of the opinion that our horses must have come from some other tribe. Had we obtained them from the Assiniboin, we too would have considered them sacred and sung sacred horse songs to them as they did.

Our winter counts do not tell us when we first obtained horses; but I think it was not quite three hundred years ago. After we got, as I believe, the first Cheyenne pony, our horses increased and many came to be owned in our tribe.

IDEAS CONCERNING HORSES.

When I was somewhat past ten years of age, my father took me with him to watch the horses out on the prairie. We watered the herd and about the middle of the day came home for dinner. In the afternoon we again took the herd out to graze. There were many enemies around at the time and we had to guard our horses closely.

While we sat watching the herd my father said: "These horses are gods, or mystery beings. They have supernatural power. If one cares



Fig. 1. The Hidatsa Village in 1879.

for them properly and seeks good grazing and water for them, they will increase rapidly. I am sure, my son, that if you will remember my words and observe them when you are older, your horses will increase and all will know that you are a good raiser of horses. Other tribes also observe these things, and are known to be good raisers of horses.

I have said that these horses are gods; for they have minds and understand. I once had a stallion and did not guard him as I should, so he wandered away to another herd of horses. Even then I did not go to get him, but let him go as if I did not care. One night I dreamed that the stallion stood before me. 'You did not care for me as you should have done,' he said. 'You would not give me good water and grass, so I went to another country to look for mares.' Not long after that, some enemies came and stole that stallion from me. So the dream came true. He went to another country and I lost him. Ever since that time I have taken good care of my horses."

THE COLT.

In preparation for the birth of a colt, a pint or two of dried dung of antelope, elk, or jack-rabbit was gathered and kept in readiness to rub over the colt's body as soon as it was born. This was to absorb the gummy moisture with which the colt's body was covered at birth and to dry its coat. The dung of jack-rabbit, antelope, or elk was used because these are all speedy animals, and so would cause the colt to grow up to be speedy like them, valuable for racing and hunting.

When a colt is born, the mare should bite off the umbilical from the afterbirth. Goodbird says he knew a mare that bit the umbilical too close, and her colt died. The dung was always rubbed over the colt after the umbilical had been bitten off. Then the owner of the colt broke off the soft yellow pads from the bottoms of the colt's hoofs; with his thumb and forefinger he pressed the soft, inside part of the hoof along the edge to make it symmetrical and even.

Although I myself have never seen it done, I have heard that in the old days, when the birth of a colt was expected, everyone went off and left the mare to herself, as it was said that the birth was thus made easier. After the colt was born, the owner led the mare and her colt outside the village and picketed her there. For the first ten days the colt was carefully guarded lest it be attacked by wolves, or be injured by the other horses; after that, it was turned out with the herd. I have heard of colts being born within the earth-lodge, but I never witnessed this myself. My father told me that a colt was once born in his earth-lodge,

but I never heard of this happening elsewhere in the village, at least in my lifetime.

The boys of the household had a strange use for the first dung dropped by a colt. It made an excellent yellow arrow paint. We boys rubbed it on our arrowshafts, or sometimes took it home and rubbed it on our play sticks, for the game of *úmakihěkě*. This quality of the colt's dung continued for the first two or three times a colt dunged. As I recollect it, we picked the dung up in the morning and evening. It was a small, gummy mass, about the size of one's thumb. We used it wet; or if it was dry, we spat on it and rubbed the moistened part on the arrowshaft.

CASTRATION.¹

A stallion colt born in May was sometimes castrated the next fall, or when about five months old; but generally castration was postponed until the colt was two years old. It might take place even later, as five, six, or seven years after birth. Two years, however, was the more usual age for castrating horses.

Certain men who knew the art were called in to perform the castration for a castrator must first have bought the art from someone who owned it. A castrator's fee consisted of ten objects; three of these were essential, while the rest might be chosen by the owner of the colt. The three essential objects, a knife, a rawhide rope, and the tanned skin from a buffalo's belly worked with porcupine quills or painted with white clay, were symbolic of the castrator's calling. The tanned buffalo skin was

¹Castration naturally raises the question as to European influence. It can be assumed that the idea and the technique were taken over from the European colonists along with many other aspects of horse culture. Yet, the castration of dogs is reported as a fixed custom among the Northern Plains tribes, as if it were aboriginal. Maximilian (*Travels in the Interior of North America*, Vol. 2, 175) is responsible for the statement that buffalo calves were castrated and turned loose so as to provide superior meat animals. If this be correct, then the weight of evidence for the prehistoric existence of the technique is increased. However, as the case stands, we cannot be sure that the idea of castration did not come in with the horse and then, by suggestion, was applied to dogs. The probabilities, at least, favor the European origin of the idea.

On the other hand, it appears in the Plains early, since in the time of Lewis and Clark the custom seems to have been known to all the Indians, for when among the Chopunnish we read: "we have found our stonehorses [stallions] so troublesome that we indeavoured to exchange them with the Chopunnish for mears or geldings but they will not exchange altho' we offer 2 for one, we came to a resolution to castrate them and began the operation this evening one of the indians present offered his services on this occasion. he cut them without tying the string of the stone as is usual, and assures us that they will do much better in that way; he takes care to scrape the string very clean and to seporate it from all the adhering veigns before he cuts it. we shall have an opportunity of judging whether this is a method preferable to that commonly practiced as Drewyer has gelded two in the usual way." (35).

"... several of the horses which were gelded yesterday are much swollen particularly those cut by Drewyer, the others bled most but appear much better today than the others." (39.)

"... our horses are all recovering & I have no hesitation in declaring that I believe that the Indian method of guldng [is] preferable to that practised by ourselves." (103) (See *Original Journals of the Lewis and Clark Expedition*, vol. 5, New York, 1905.)

While these are the only cases of castration we have noted, it is plain from the text that geldings were obtained from the Indians on the Missouri. Turning now to the technique of the operation, it appears that the Chopunnish Indian referred to above, did not follow the precise method described by our informant.

used as a saddle blanket; the rawhide rope was to lead the horse; and the knife was employed in the operation.

The castrator always kept on hand sinews from the back of a jack-rabbit, an antelope, or an elk, which he used for making the necessary ties. We believed that according to the sinews used to tie the wounds of the castrated horse, so would he afterwards exhibit the peculiarities of speed of the animal furnishing the sinews. Thus, the jack-rabbit runs with great speed, but stops every now and then; the antelope runs rapidly but soon becomes winded; the elk has both speed and endurance.

In old times I knew a man named Big-black-spot, who castrated horses. I will tell you how I saw him castrate a colt of mine. I had two colts, about two years old, which I wanted to become race horses. I tried them both, and found that one showed very good speed and bottom. I asked my father's opinion. "The second colt," he said, "will make a speedy horse, but he should be castrated to make him faster."

There was another reason why I thought the colt should be castrated. In the spring, when the snow is soft and the ground muddy and slippery, horses, especially stallions, tire very quickly. A stallion, no matter what his condition, whether plump or lean of flesh, was apt to give out soon and show weariness. A castrated horse did not tire so easily.

I sought out Big-black-spot in his lodge. "I want you to castrate one of my horses," I told him. He agreed. "I did so to a stallion for another man a little while ago, and I still have some of the necessary materials," he said. "What do you ask for pay?" I asked him. "I must ask for a knife, a tanned buffalo-belly skin, and a rawhide rope," he answered. "I also expect seven other articles as you may choose to give me." "I have them all ready, now," I said. "Then let us take the colt out of the village," said Big-black-spot.

He got his materials and we led the colt out of the village. A friend of mine, Lean-bull, helped. We put a rope over the colt's neck and drew it around his hind legs. A second rope was fastened about his forelegs, and the colt was thrown.

Big-black-spot drove a stake into the ground with an ax, and bound the colt's forelegs and one hind leg to it. The left hind leg was fastened to the rope around the colt's neck, Fig. 2. Around the colt's scrotum, above the testicles, was firmly tied a bowstring, the free end of which was carried back and attached to the tail. This was to prevent the colt from drawing up his testicles. Then Big-black-spot anointed the colt's scrotum and adjacent parts with some medicine he had brought with him in a pan, saying, as he did so, "Let this make your body good and

strong." This medicine we called *atúdědě*. It is a bulbous root from the Rocky Mountains, not unlike a prairie turnip, but larger. It was scraped fine and powdered and mixed with water. Before applying the ointment it was warmed over a fire built near by. After using the ointment, Big-black-spot rubbed the same parts with wild sage.

Big-black-spot now showed me three kinds of sinew; the shortest piece, about seven inches long, was from a jack-rabbit; the second, fifteen inches long, and white, from an antelope; the third, two and a half feet

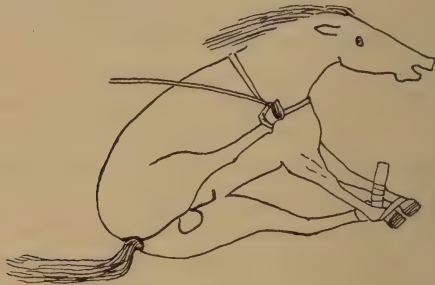


Fig. 2. A Colt tied for Castration.

long, from an elk. They were all taken from the back of the animal, like the sinew we take from an ox. Big-black-spot asked me to choose which sinew I wanted for tying. "If I use the jack-rabbit sinew," he said, "your horse will run as swiftly as a jack-rabbit, but will stop when you are not expecting it; if I use antelope sinew, your horse will run swiftly, but will not be able to keep his pace for a long time; if I use elk sinew, your horse will not run as rapidly, but will have more strength and endurance." I chose the elk sinew.

Big-black-spot picked up the sinew and his knife and proceeded. He made a horizontal incision quite around the middle of the scrotum; he removed the outer skin of the lower half of the scrotum and cast it off. This exposed the two testicle sacks. He cut the tendon, or muscle, that united the two testicle sacks and made a vertical incision in each sack, on one side only; he now drew the testicle through this incision, letting the empty testicle sack slip up under the upper half of the scrotum. He pushed the stump of the scrotum well up, drew down the two testicles, and after tying the elk sinew tightly about the tissues from which each testicle hung, he cut off both testicles with his knife. The elk sinew he used had been prepared and twisted like a bowstring.

Big-black-spot now dipped his bunch of wild sage into the medicine again and brushed the parts about the wound saying, "I want you to make your body good so that your wound will heal quickly. I want you to grow and spring up like these plants. I hope Wolf-chief will have good luck with this horse this year."

Big-black-spot untied the colt and he got up. He faced the colt west, and threw the severed testicles in the same direction, and said, "Lead your horse in a short circle around these testicles, and return to the place where the horse is now standing." I did so, moving in a sunwise circle. Big-black-spot then continued: "Take these severed testicles and throw them into the Missouri River. Water your horse at the river this evening and again in the morning; but watch him carefully for four days, and do not let him enter the water, where he will sink up to his wound. After the fourth night (i.e., day) let him enter the water so that any corrupt matter may be washed away. After the fourth night, also, you may turn him loose to graze; after ten nights, you may ride him a little; after fifteen nights, the horse will be well again, and you may let him run as he wills."

He castrated the colt in May. The operation took about two hours, from nine in the morning until eleven. I paid Big-black-spot moccasins, calico, a dish, and other things, besides the three essential articles for his work. The first four days after he was castrated, I let the colt run loose outside the village, but watched him constantly. When he recovered from his wound, I rode him as Big-black-spot said. I rode him in a race and he went very fast. In the autumn I rode him in battle and pursued the enemy, riding up close to them. They shot at me, and my horse was shot through the lungs and killed. Thus it seems, the prayers of Big-black-spot were not strong.

STALLIONS.

The best stallion was kept for breeding. Stallions were not all alike; some gave more attention to mares than others. This we thought a sign of vigor. Then, too, we observed that some stallions produced no colts.

My grandfather, Big-cloud, had a fine stallion named Amanú'kae, or Digs-out-dirt, because he always pawed up the dirt with his hoofs when he came to a herd. He was often threatening to the boy herders, putting his ears far back on his head and looking savage, but he never really bit or harmed them. He was a good stallion, forcing his attentions, in spite of avoidance and kicks. He raised blue colts.

This stallion visited other herds, but Big-cloud never charged anything for his use, since it was not customary. When one owned no stal-

lion, he simply asked permission of the owner of a good stallion, to drive the latter into his herd. I do not think a man owning a stallion ever borrowed one from another.

Stallions that grew to be two years old and were slow and lazy, were castrated; also those from which no colts were born. After he was eight or ten years old, a stallion would lose his vigor; he was then castrated. Such a castrated horse was strong and good for hunting or riding any time of the year. Mares bred to stallions in the spring. A stallion stopped breeding about the first of August. Some colts were born in May, some in June, and a few in July. Gestation lasted one year.

When a mare was bred to a stallion we could not predict what color the colt would be. Sometimes the colt followed the color of the stallion, sometimes of the mare.

Usually a mare bred to a stallion about the last of April or in May. The mares were allowed to run with the herd. In our family herd were three mares and one stallion. During the breeding season we let the stallion run for a week or two with the rest of the herd. Nearly every man who owned horses kept a stallion.

After a mare was bred to a stallion and she was seen to be gravid, her owner was careful, when riding her, to sit well forward; and he was especially careful to see that she was never ridden double. A mare ridden double, or with the rider seated too far back, would be likely to cast her colt before its time. For the same reason, a gravid mare was never struck on the back with a whip. An unborn colt lies with its head close to the mare's backbone, and there was danger of the whip striking the head and injuring it.

If a gravid mare developed an irritable disposition, trying to bite the other horses, we said, "That mare carries a stallion colt." But if the mare continued gentle, we thought it a sign that she carried a mare colt. If a gravid mare was afraid to go on slippery places and hesitated to go on ice, we thought it a sign that her colt would be a mare; but if she was bold, fearing neither ice nor slippery ground, we thought she would bear a stallion colt.

A mare bred in May should bear a colt the next May.

TRAINING.

A colt was broken at two years of age, for a three-year-old is nearly grown, and is then hard to break. Yearlings were sometimes broken, but were apt to develop lameness, or grew knock-kneed from the weight of the boys riding them. The joints of a yearling's legs are still soft.

Colts were broken by boys fourteen to seventeen years of age; but boys as young as eleven helped. As I have often broken colts, I will tell my own experience.

Several of us drove a herd down by the Missouri at a place where the current was rather swift, and so likely to prevent a swimming colt from getting back to shore too easily. I roped a two-year-old and drove him into deep water; swimming out to the colt, I mounted him and made him swim with me on his back. Now a two-year-old still suckles his mare, and frightened at my weight, the colt tried to make shore, where he knew his mare was. I clung to his back, forcing him to swim until, reaching shallow water, his feet touched ground, when he soon struggled to land. By this time I had dismounted. Following the colt, I drove him again into deep water and repeated the lesson; and so for two or three hours, until the colt was weary. The last time the colt came out, I stayed on his back.

Only one boy mounted a swimming colt, for under the weight of two a colt would sink. A horse drowns more easily than a man. "If a horse sinks until water runs into his ears, he grows weak," we Indians say.

As the colt reached shore the last time, another boy mounted behind me; and together we rode the poor beast back and forth over the low-lying sandbank covered with soft mud. There are many such sandbanks along the Missouri; a slight rise in the river covers them with several inches of soft mud. We rode the colt over such ground until it was utterly exhausted.

Had we tried to mount him when he was fresh, the colt would have bucked and very likely given us a fall. However, in the soft mud or in the sand we were not likely to be hurt even if we were thrown off; certainly, a fall here would not be as dangerous as on hard ground. It was usual for two boys to ride the colt we were breaking, as the animal was thus more rapidly exhausted. We always rode bareback when breaking a colt.

We continued these two or three-hour lessons for three successive days, after which we considered the colt broken; it was now usually safe to mount and ride him on land.

To Swim. A colt was also taught to swim the Missouri. To train my colt, I needed the help of two other boys. One of these swam ahead with a lariat, one end of which was bound about the colt's head like a halter (to have fastened the lariat like a bridle about the colt's lower jaw would have been dangerous, as likely to have let water run down his throat). I followed, swimming on the downstream side of the colt, guiding him, and clinging with one hand to his mane. A third boy swam

at the colt's tail, but not grasping it; now and then he scratched the colt's ham or leg to frighten him and make him swim ahead, or struck the colt on the back above the tail crying, "*y^h-hah!*"

The water covers a swimming horse only a few inches and his back is visible from above. The horse works his legs as in walking and breathes through his nostrils, with a prolonged snorting sound, made by blowing water from them.

There was need to train our ponies to take the river readily. One might be out with a war party fleeing from enemies. In such times he needed a pony trained to swim for he might have to escape across the Missouri. Then, too, we needed well-trained ponies to pursue our enemies. We were much troubled by our foes when I was a boy, especially by the southern Sioux. Our village stood on the north bank of the Missouri at Like-a-fishhook bend. The river here was rather narrow and in summer parties of Sioux sometimes approached the south side of the river, and running out on a sand bank there, shot across into the village. More often they hid in the woods that skirted the river, especially at early morn or evening, waiting for some woman or child to come down to the watering place, or to bathe. The Sioux would then rush out from their hiding place and shoot across at the bather.

The sight of enemies on the other side of the Missouri was always a signal for our brave young men to seize their horses, gallop to the river, and plunge in and swim across in pursuit; but unless a pony had been trained to it, he was likely to refuse to breast the swift current. With their well-trained ponies our young men were able to cross quickly.

For War. I did not begin to train ponies for war until I was sixteen years old. A boy of fourteen we thought old enough to strike an enemy; and some boys at this age began to train and manage war ponies. A boy as young as eleven might help break colts, but his legs were not strong enough for him to keep his seat on an untrained pony. A sixteen year old boy should be stout of legs and able to stick on a pony's back and manage and train him for war.

A war pony was trained to dance, as we called it. I took my previously broken two-year-old, mounted, and kicking him with my heels and drawing in my breath with a whistling sound through nearly closed lips, signaled him to go; but while doing thus, I also drew on my reins, jerking them repeatedly, as if to stop my pony. Not liking this, he tried to break away, but I checked him each time with the reins, and even struck him, not very severely, on breast and fore legs, with my quirt. All this made the colt leap and prance about from side to side, his fore legs moving together, but his hind legs moving alternately.

Again, drawing my breath with whistling sound and kicking my colt with my heels, I now and then drew on my reins steadily, but not jerking them. This made the colt rear straight up on his hind legs. Sometimes a rider, making his pony rear thus, slid down his horse's back, unable to keep his seat.

I gave my colt several such lessons, in the morning and again in the evening. After two days, the pony had learned what was wanted of him.

Every war pony was taught to dance. In battle, unless a pony was constantly moving, he drew the enemy's fire upon horse and rider alike. A standing pony made an easy mark. A pony trained to dance and prance was much less likely to be shot.

Parading. On quiet evenings in summer, a young man painted and dressed in his best, often mounted his trained pony and paraded through the village, making the pony dance as he went. Usually just one young man paraded, not several in a company; his purpose was to be admired by the village maidens. He wanted them to see what a fine figure he cut on his war pony. Or, sometimes a brave warrior, one esteemed by every one and who had won honor marks, would parade on his pony. The warrior did so without weapons.

Sometimes, when parading, the rider halted his pony and thrust the toe of one foot under the fore leg of his steed between its leg and body; at the signal, the pony lifted his leg and pawed the ground. The rider then did likewise with his other foot, making the pony paw with his other fore leg. This the pony had also been taught when he was trained to dance.

To Turn and Stop. A war or hunting pony should be trained to turn at the shifting of his rider's weight to either side.¹ Thus, I mounted my pony, and urging him at full speed, fell over on his right side, throwing my left leg over his back and holding to his mane with my left hand, or throwing my left arm over his neck. At the same time I pulled on his right rein, causing the pony to turn to the right in the arc of a circle. Or, if I dropped on the left side, I threw my right leg over the pony's back. Thus exercised, he learned to turn always toward the side on which he felt the weight of my body.

In time, a pony came to obey the movement of his rider's body very readily, quite without the use of the reins, whether ridden saddled or bareback. This training was of great use in hunting and war. We hunted buffaloes with bows and arrows when I was young; powder was costly

¹For training of horses to run buffalo, see Boller, Henry A., *Among the Indians. Eight Years in the Far West; 1858-1866. Embracing Sketches of Montana and Salt Lake* (Philadelphia, 1868), 233-235.

and was saved for war. A hunter, unless left-handed, overtaking a buffalo, approached from the right of the animal. Running then on the right, and a little back of the buffalo, the hunter leaned over to the left with bow ready and arrow on string. A well trained pony, feeling the weight of his rider's body on his left, turned in close to the buffalo, thus giving the hunter a good shot; and being thus trained, the pony did not shy off or show fear, as he otherwise would, at approaching the buffalo.¹

Likewise, if in battle I approached the enemy and they began to shoot at me, I could drop, let us say, on the right side of my pony, clinging, as explained, with my left leg over his back. Feeling my shifting weight, the pony would swerve around toward the right, exposing his left side to the enemy and shielding my body with his own; and in like manner, if I dropped on his left side, the pony would swerve toward the left. I once saved my life thus shielding my body behind my pony; he was killed, but I escaped unhurt.

We also trained our ponies to stop short, even if going at high speed.² For this purpose I laid a blanket or other object on the ground, galloped up to it, and drawing sharply on the reins brought my colt to a full stop. A pony was usually intelligent and soon learned to stop short, even when going at full speed; but a rider had to look sharp that he be not thrown from his horse's back.

Such training was very necessary, for in places like the Bad Lands one might come unexpectedly upon chasm or ravine, and must stop abruptly or risk a bad fall. A pony's natural bent was to try to leap a chasm even if the distance was an impossible one.

To Leap an Enemy. Another thing a war pony, indeed almost every horse, was taught to do, was to leap an enemy. I made a small pile of sunflower stalks or cornstalks, or brush, or almost anything, and covered the pile with a blanket, usually the blue cloth kind we wore. I mounted my colt and made him gallop up to the blanket and leap over it. At first he would be afraid and would try to go around the pile; but at last he leapt over the blanket. A day's lessons were enough to break a pony to do this.

Let us suppose I was in battle and an enemy fell. If near, I would try to ride up and strike coup on the body. But unless my pony were

¹Peter Pond, 1740-1745, reported that the Yankton-Dakota had numerous horses:—

"They Have a Grate Number of Horses and Dogs which Carres there Bageag when they Move from Plase to Plase. . . They Run down the Buffelow with thare Horses and Kill as Much Meat as they Please. In Order to have thare Horseis Long Winded they Slit thair Noses up to the Grissel of thare head which Make them Breath Veray freely. I Have Sean them Run with those of Natrall Nostrals and Cum in Apearantley Not the Least Out of Breath." (*Collections of the State Historical Society of Wisconsin*, vol. 18, 353).

²For skill in handling horses, see Boller, *ibid.*, 64.

trained, he would be almost sure to swerve. A trained pony leaped over the fallen enemy, giving me opportunity to strike coup.

Even if a warrior did not actually strike his fallen foe, if he made his pony vault over the body, it counted a coup, first, second, third or fourth, exactly as if the coup were made by striking with a hand weapon.

SUMMER PASTURING AND HERDING.

Horses were driven to pasture in summer, usually about three miles from the village. Every family herd had its herder, usually a boy; and many of the horses were kept hobbled. In more recent years, ponies were often picketed. A short pin of ash wood was driven into the ground; to it was tied a lariat which was fastened about the horse's neck. In earlier days we never fastened a pony by rope or halter about his neck, fearing he might strangle himself.

There was always danger in summer that enemies might be lurking about. In the mornings especially, we feared attack, for a raiding party commonly spent the night in camp, making ready to strike at daybreak. For this reason we guarded our herds rather closely in the morning, but toward the latter part of the afternoon we felt it safe to drive them further out from the village.

Once when I was about eleven years old—it was the year following our camp at Buck-brush Eagle-pit—we thought no enemies were about, and late in the afternoon drove our horses six miles from the village for better pasture. Suddenly, enemies appeared and drove off about a hundred of our horses. We had thought it too late in the day to expect an attack, and our guards, perhaps, had grown a bit careless.

We had often to battle with enemies when I was a young man. During my lifetime, we Hidatsa, I think, have killed about two hundred enemies, as nearly as I can count. Enemies were far more likely to trouble us in summer than in winter. Still, even in winter, we had to guard our herds. Six times, within my memory, raiding parties came against us in winter and succeeded in driving off some of our horses. We pursued and killed some of these raiding enemies.

It was the duty of the boys of the household to herd the horses when they were grazing on the prairie or in the hills. We lads, as we guarded the herds, often hunted gophers or blackbirds, which we cooked at a fire and ate. Sometimes we played the arrow-shooting game, two boys shooting against two others, or just one against another. The wager was often a bird or a gopher.

We drove the horses to the Missouri to water them. We patted and stroked the colts as they drank so as to accustom them to being handled. They soon grew so tame that we could catch them in the prairie or the hills without trouble.

The Missouri is a deep stream, and is not very shallow usually, even near the shore. A young colt was helpless in water shallow enough for a man to stand upright. We lads took advantage of this fact. If a colt was a bit wild, we drove him into deeper water where a lad waded out to him and caught him; for, not being able to touch bottom, the colt could not escape. We then petted and stroked and rubbed the colt, so that he soon became gentle and let himself be caught whenever we wished.

Corral under the Drying Stage. It was our custom to drive the family herd in from the hills to the corral in the earth-lodge every night. If a man had more than five horses, there was not room in his lodge for all of them. During war, however, he kept them all in his lodge, putting up a second, or war corral, in the lodge to the left of the door as one enters. To accommodate a larger herd a corral was usually made underneath the drying stage which stood in front of the earth-lodge. The drying stage had a floor supported on posts, a little higher than a man's head. These posts we surrounded with triple railings of poles, running quite around the stage. A pole or rail ran from the front to the middle post, where it was joined to a second one which reached to the rear post. The rails which ran the width of the stage only, in front or rear, were single poles. The rails on the sides of the posts ran outside of the posts; but the front and rear rails ran on the inside of the posts, and rested upon the side rails I count as "front" the end of the stage in which was placed the gate.

The front rails were used as the gate and were let down and tied up again with a rawhide rope. All rails were bound in place with rawhide thong. A notch was cut on either side of the posts of the stage, within and without. Where it lay against the post and received the rope, the rail itself was also notched. The rope was bound around both rail and post. The lowermost railing lay about two feet from the ground; the second, about three feet; the uppermost, about four feet from the ground.

A gentle horse might be tied to one of the front posts, by one foot, with a rope or thong about four feet long. If all the horses were quite gentle, one might be tied to each post in this manner. A colt could be put with the other horses into the drying stage corral, which could receive horses up to the number of about twenty. In front of my father's earth-lodge we always had a drying stage and corral, but we kept our best horses, especially our best mares, in the corral inside the earth-lodge.

In the early morning, we threw cornhusks from our breakfast into the corral for the horses to eat, or else brought grass for them. They were not taken out on the prairie until about ten o'clock in the morning, as many families in the village might still be asleep; and anyway, it was rather quiet in the village during the breakfast hour. If at this hour an alarm were raised that enemies were stealing our horses, we could not expect as quick and vigorous a pursuit as would be the case later in the day.

Sometimes horses were hobbled in the timber about sunset and left for the night; for enemies were not likely to find them, hidden as they were in the trees. A stallion was never hobbled and left in the woods for the night, for he would struggle and fight to get away; or he would whinny and call to the mares so that any enemy who happened to be within hearing could discover where he was.

When we drove the family herd in at evening, only our two fast horses, Deer-horse and White-belly, and three mares were usually brought into the lodge; if, however, enemies were about, we sometimes brought the whole herd in, the five horses named going into the regular corral, and the others into the war corral to the right of the door as one leaves the lodge. Our mares were valuable for breeding and we did not want enemies to steal them.

Sometimes, if enemies were known to be about, a man of the household would make his bed out on the drying stage floor and stay there all night, watching the horses and singing. He sang so that the enemy would know he was guarding his horses.

A Typical Summer Day's Herding by Boys. I will now describe a typical day's herding by boys. Let us suppose that I was about fourteen or fifteen years of age, and that the time of year was about the present date (August 8). I recollect very well what occurred one particular day about this time of the year and will tell about it.

I arose after the sun was up, probably about eight or nine o'clock. Often, though not always, I went for a morning bath in the Missouri. In that case I proceeded to the river in moccasins, breechelout, and robe. While I bathed, I drank great quantities of the river water. When I was through bathing, I drew on my robe, and now that the water had settled well in my stomach, I vomited it up in order to wash my stomach clean. To do this, I stooped, and pressed my hands over my stomach, at the same time retching. The water came up from my stomach rather thick. It was the thick moistures I wanted to cast forth, and I felt

good after doing so.¹ Sometimes after bathing in the river, I rubbed my body with white clay. This made my body feel light. I let my hair hang loose, as it was wet from the bath in the river.

I returned home and put on my leggings and my shirt of white sheeting. Although I did not always wear my leggings during the night, I

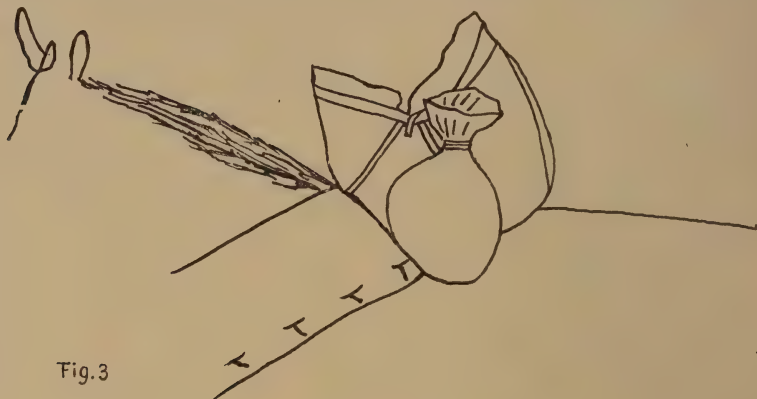


Fig. 3

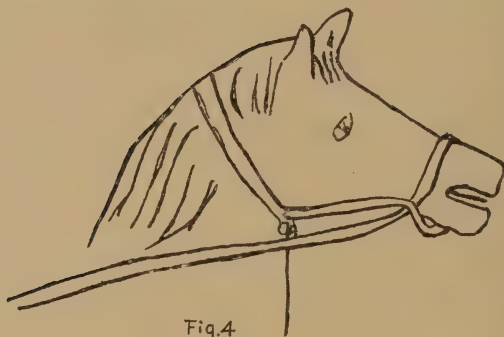


Fig. 4



Fig. 5

Fig. 3. A food-filled Heart Skin tied to the Belt with String.

Fig. 4. Method of tying a Halter.

Fig. 5. Carrying a Package of Maize Ears tied to the Elbow.

had slept in both leggings and shirt the previous night, but had taken them off to go to the bath. If I slept without my leggings, I always laid them beside my bed in readiness for the morning.

¹Among all the Plains tribes bathing was a daily custom for the young and middle-aged. Even in winter a hole was broken in the ice and a plunge taken. Old men were appointed to see that boys took their baths regularly. However, the practice of the narrator in purging himself, has not heretofore come to our notice, except as an occasional feature of the preparation for a ceremony.

The rest of the family had eaten their morning meal while I was at the river. My mother gave me my breakfast when I came in. In a wooden bowl she had put boiled dried meat and a mess of parched corn-meal boiled with dried squash. She had parched the corn in a frying pan until brown, stirring it with a stick to keep from burning. She pounded the parched grain to meal in a wooden mortar. When she had brought the squash to a boil, she added the meal. To eat the mess, I probably had a buffalo horn spoon. Sometimes I ate with a mussel shell, or even with one of the big spoons made of a Rocky Mountain sheep horn. The broth in which the dried meat had been boiled, was served in a tin cup for a hot drink, as we now serve coffee.

Breakfast eaten, my father said to me: "It is time for you to take out the horses. Keep careful watch in the hills. If you sight any strangers who look like enemies, hasten back to the village. Leave your lariat on the neck of your saddle horse and let it drag, so that if an enemy appears, you can quickly catch your horse."

My mother handed me my midday lunch, a double handful of whole parched corn, mixed with minced pieces of dried kidney fats. It was tied up in a heart skin which I fastened by a string to my belt over my left hip (Fig. 3). I also picked out four long ears of white corn from the harvest of the previous year and tied them up, in a piece of cloth. Around this bundle I passed a piece of thong, tied the ends in a loop, passed my left arm through the loop, and so carried the bundle slung on my left elbow (Fig. 5).

I caught one of the mares in the corral, and put on her a halter made of a flat rawhide lariat (Fig. 4). "That is right," said my father. "Drive the horses to the river and let them swim to cool off their bodies, that they may better enjoy their grazing."

About sunrise, and before he had eaten his breakfast, my father had driven the two best horses and the three mares of our herd to the corral under the corn stage; for all five horses had been stabled for the night in the corral in the lodge. Our stallion had been kept in the corn stage corral all night; and as no mares were then there, he had kept quiet.

The regular place for the corral in the earth-lodge was to the left of the entrance; but in time of war, when there was danger of enemies entering the village, a second corral was made to the right of the door, using "left" and "right" in the Indian sense, as of one standing at the fireplace and facing the door. This second corral was fenced off against the fire screen (Fig. 6). In the diagram I have indicated the places for the gates. The crosses mark where we fed dried grass to the horses. As

will be noted, the grass was fed in the rear of one corral and along the front of the second.

When it was necessary, as in war times, to take the whole herd into the lodge, the stallion was tied by one fore foot to the post marked *p* in

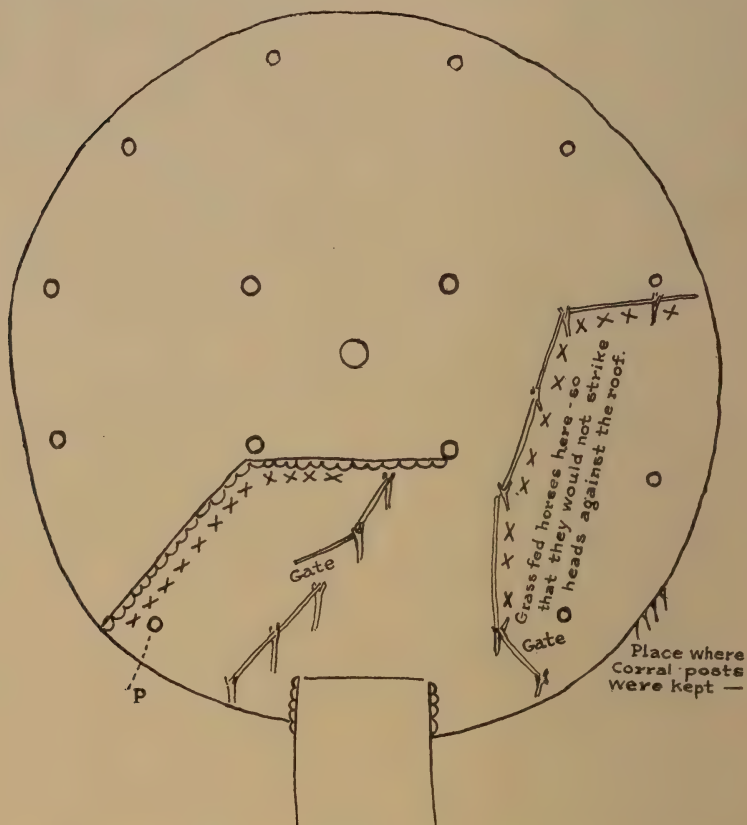


Fig. 6. Diagram of Interior of Earth-Lodge, showing Position of Corrals. The Corral on the left is the War Corral. *p*, Post where Stallion was tied; X—X, the points where grass was fed to the horses.

the diagram (Fig. 6). This was one of the exterior supporting posts, and stood between the fire screen and the door. Mares were distributed indifferently in either corral.

In our family, it was the custom to keep the four or five posts of the war corral standing, fork upward, outside the lodge and on the left of the door as marked in the diagram (Fig. 6). Lengthwise on the ground

beside these posts were laid the corral rails. We preserved these posts and rails even in peace times, for they were hard to get. We had to go two miles up the Missouri to cut them, and return in a boat, floating the rails in the current.

We considered the war corral as an emergency corral, to be put up only in times of extreme danger. When the danger was past the corral was taken down, and the floor was swept with native brooms of buck

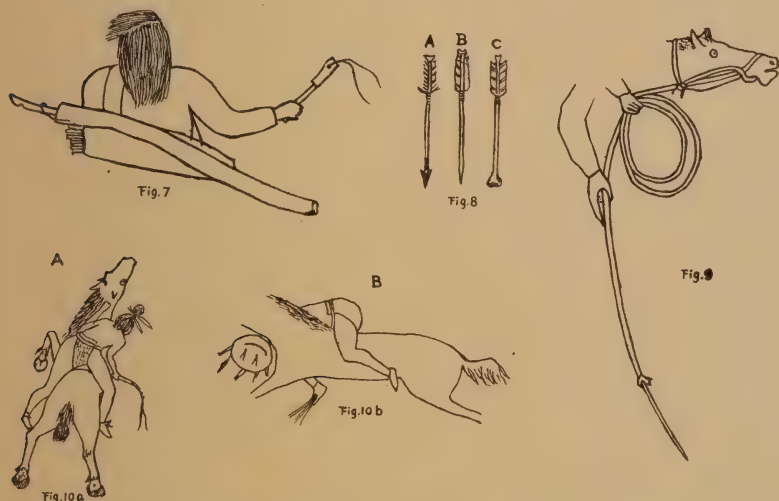


Fig. 7. A Bow Case and Quiver in one Piece, showing Method of Carrying; also a Willow Quirt with Rawhide Lashes.

Fig. 8. Arrows. A, with iron head and prairie-chicken feathers; B, pointed wooden shafts and duck or owl feathers; C, blunt-headed, with duck or owl feathers.

Fig. 9. Guiding a Horse with a Halter to the end of which is tied a Buckskin Lash.

Fig. 10. Riding Horses. Two views of a warrior leaning over the side of his horse, to keep out of sight of the enemy.

brush. For that matter, every morning the corrals inside the lodge were swept with these brooms by the women of the household. The dung and other refuse were borne in skin baskets to the Missouri and pitched over the bank.

Having haltered one of the mares, as already described, I unbound the thongs that fastened the gate rails, and leaving these on the ground, I let the horses out of the corn stage corral. I mounted the haltered mare and drove the herd to the river. Now that the corn stage corral was empty, my mother cleaned it up as she had already done with the corral

inside the lodge. We always kept the ground neat and clean about our lodge.

As I started off on my mare my father said, "If you meet enemies while you are guarding your horses, try to escape and return home. If you cannot escape, stand against them like a man and make good use of your arrows!"

I had an unbacked, self bow of chokecherry wood, and a quiver of arrows which I carried on my back. The bow case and quiver were in one piece (Fig. 7). Of the three kinds of arrows in my quiver, five or six had iron heads and were feathered with prairie-chicken feathers (Fig. 8a); two were blunt-headed (Fig. 8c); and seven or eight were pointed wooden shafts, like Fig. 8b. The last two kinds were feathered with duck or owl feathers.

The blunt-headed arrows were for birds; those with iron heads for enemies; and those of pointed wood (Fig. 8b) for gophers and small game. With these last we also played arrow games. The pointed wooden arrows were prepared by shaving the end of the shaft to a point, oiling it with grease, and holding it over a fire of coals to harden it. The other arrows were not treated in this way. The blunt-headed arrows were of chokecherry wood; the others were of juneberry shoots. Juneberry wood is dense and heavy, while chokecherry wood is lighter and better suited for the rather clumsy blunt-headed shafts. A dense, heavy wood would have made these arrows too heavy.

For shooting at birds we also used another kind of arrow that had thorns bound to the side of the shaft near the point. I did not take any of this kind with me this day because they were not much used out on the prairie, their chief use being for shooting through a flock of birds, or at a bird up in a tree. Besides to have carried thorn arrows in my quiver would have injured the feathers of my other arrows, for the thorns would have torn the plumes as I drew them from the quiver.

My father was an arrow maker, and had made all my arrows for me. They were therefore quite handsome. They were feathered with plumes from the wing of an owl, a prairie-chicken, or a duck. "These arrows, feathered with prairie chicken-feathers, are the best," my father said to me. "They will fly swiftly." He feathered the five or six iron-headed arrows with prairie-chicken feathers, three plumes to a shaft. The other arrows were irregularly feathered. Some had all three plumes of owl or duck feathers, others had some duck and some owl feathers.

My bow was thrust into the quiver with the loose loop of the bow-string hanging out, as in Fig. 7. In battle the quiver was turned so that

the arrows were in front, though sometimes the quiver was tied to the belt.

I also carried an unpainted willow quirt, sometimes in my hand, sometimes thrust in my belt. It bore two lashes of rawhide. I never whipped my horse with it. My father once had a vision; he gave me this quirt to carry as a sacred object, because of what he had seen in the vision. "Carry this quirt, my son," he said, "and keep it as a sacred object. I will give you a whip song to sing to it. When you are alone, cry and pray to it; and you may then expect to strike an enemy with it some day." Goodbird has drawn this quirt as I have described it to him (Fig. 7).

If I were attacked by enemies, however, and were in danger of capture, I should have whipped my horse with the quirt. I should have expected the quirt to have supernatural power that would cause my horse to run swiftly. My idea would have been that since the quirt was a sacred object, seen by my father in a vision, it had sacred power which I would have invoked in this way.

As shown in Fig. 7, I wore my hair loose. I did not wear a braided scalplock. When an enemy fell, the first man to strike coup on his body cut out the crown; and the others who also struck coup would in a twinkling strip the whole skull of the scalp. We banged the front of our hair and combed it back. The hair was cut short below each ear. That on the back of the head was let grow, and was sometimes tied in a bunch, or knot, much as white women do. In olden times, Hidatsa women did not braid their hair as they do now, but made a knot of it over the forehead.

Well, as I have said, I drove the herd down to the river, at a place west of the village. After the horses had drunk their fill, I forced them into the water and made them swim or wade to their full depth.¹ Then I dismounted, let my mare drink, and drove her into the water; and holding her by the lariat, I made her wade almost beyond her depth.

At the end of the lariat I had made a hole in which I had tied a piece of soft buckskin for a lash (Fig. 9). This lariat end I used as a whip, giving it a jerking throw so that it made a cracking noise. I think it was very much as you describe the white man's custom of cracking a black-snake whip. As will be noted in Fig. 9, the index finger is extended its entire length down the lariat; this was always done when one threw the whip (or lariat end) to make it crack.

¹ . . . Drove of horses cover the prairie, slowly driven towards the river; when they approach, the bathers leave the water, and their places are quickly filled by the restless, half-wild horses, who, urged by the yells and cries of their drivers, rush pell-mell in. After drinking and swimming about, they scramble out, and forcing their way through the incoming droves, quickly rejoin their companions. When each band is collected again, they are driven up to their owner's lodge, and secured for the night." Boller, *ibid.*, 61.

The halter shown in Fig. 9 (and which is the same as that in Fig. 5) we call *ápa-pihě*, from *ápa*, nose, and *apíhě*, something hanging. Such a halter was used for short home journeys, such as passing to and from pasture, to the river to water, and the like.

All twelve horses in our family herd were Indian ponies. The mare I rode was a dark bay with a white spot. Another, called Deer-horse, was a dark bay; a third, White-tail, was a grey. A good many of the herd were red, or bay; some had white hind legs, and as I have described elsewhere, one had a white belly.

It was not hard to guide the mare with a single rein and noose over the nose as shown in Fig. 9. If the rein was drawn to the right, the pony understood and followed; if drawn to the left, the pony obeyed. As may be seen in Fig. 9, the lariat fell to the right of the horse. A well-trained pony could be guided merely by putting a noose over the neck and drawing the lariat to right or left. A third way to guide a horse was, as elsewhere described, by throwing the weight of the rider's body to right or left. The horse, if well trained, would understand and obey.

Especially in battle, a warrior would often throw himself down on one side of his pony, when at once the animal would swerve toward the side on which the man clung. A warrior dropped on the right or left side of his pony indifferently. A man unable to do so, but who, for want of training, sat straight on his pony, would soon be shot in battle. When a warrior dropped on the side of his pony, all that could be seen of him from the opposite side was one leg and part of his thigh.

It was not our custom to use a saddle in battle, because it would then have been impossible to drop on the side of the pony.¹ Goodbird has drawn two views of a warrior dropping on the side of his horse (Fig. 10). In Fig. 10*a*, the warrior is seen from the rear as he drops down on the side of his pony, and the animal is swerving to the right. Fig. 10*b* is a side view; in this case, the enemy on the left can see only the man's left leg, his thigh, and a little bit of his belt. When a rider dropped on the side of his horse, he held on chiefly by the inside of his thigh. It was much easier to stick on a pony when the pony's body was sweaty. It will be

¹Maximilian visited a Hidatsa village November 26, 1833 and remarks that "The scenes which are inseparable from the dwellings of the Indians soon appeared; slender young men, galloping without saddle . . ." (Maximilian, *ibid.*, vol. 3, 24.)

" . . . Several tall, athletic men were on horseback, and managed their horses, which were frightened by the noise of the steam-boats, with an ease which afforded us pleasure. Urging them with their short whips in the manner of the Cossacks, with the bridle fastened to the lower jaw, they, at length pushed the light, spirited animals through the willow thicket, till they reached the river, where these fine bold horsemen, resembling the Circassians, with their red-painted countenances were regarded with great admiration. Many of them wore the large valuable necklace, made of long bears' claws, and their handsomely-painted buffalo robe was fastened round the waist by a girdle. In general they had no stirrups, but sat very firmly on the naked backs of the horses, and several rode on a saddle resembling the Hungarian saddle." (Maximilian, *ibid.*, vol. 1, 360.)

noted that the warrior's hair is tied in a knot just back of his forehead. The horse's tail is also knotted. In the knot in his hair the warrior fastened his individual sacred charm, or medicine, which he carried with him into battle. Only a few tied their hair in this manner, men who had been so directed in a vision, or who for some other good reason, thought it necessary to do so.

When going into battle, a warrior stripped off his leggings and sometimes, but not always, his shirt. I recollect that a warrior once threw himself on the side of his horse with his shield hanging from his back, but swinging forward so that it could be seen. The enemy shot at him and he was hit in the right foot on the far side of his horse. This is represented in Fig. 10b. The man was afterwards called Shot-foot.

A man unaccustomed to riding horseback, and sitting on a pony for the first time, will very likely have the skin fretted off the end of his spine. To such a novice, riding a single mile will be enough to do this. But we Indians did not sit squarely nor heavily on our horses. We pressed the thighs against the horse's sides. When the horse sweated, it was easy to stick to his sides when riding bareback, as in battle.

After watering the horses at the river, I drove them about a mile from the village, where I found some of my boy friends, who had reached the grazing grounds before me. They were Iduhíc, or Stands-up, seventeen years old, and Idocic, or Garter-snake, sixteen years old. As nearly as I can recollect, I was nearly or quite fifteen years old at the time. My two friends were hunting buffalo birds, or cow birds, among the horses. These birds are dark brown or black.

After driving my horses into the grazing herd, I dismounted and hobbled my mare, leaving the long lariat on her neck with the end trailing on the ground. I found the two boys had already killed three birds, which they had laid beside their two little bundles of parched corn brought for their lunch. "Have you shot some birds already?" I asked. "Yes," they answered, "but they are getting scarce now, for we have frightened them." We find it hard to get near any now."

As I talked to the boys, I looked about me. In all directions, within a radius of a quarter or half mile, were scattered herds of horses, grazing. Boys were herding most of them, but in the distance I saw one man guarding a herd. I added my horses to those of my two friends. One of these had five horses, the other, about ten; so we had about twenty-seven in the herd we were guarding.

We now started to hunt gophers. With some hair that I pulled from the mane of my mare, I made a snare and tied it to the end of my lariat.

I set the noose in a gopher's hole. Soon the gopher thrust out his head and I drew the noose taut. The little animal tried to get back into his hole, but I hurried up to it, holding on to the lariat and passing it through my hands, hand over hand. When I reached the hole I drew the gopher out and with a quick swing of the noose, dashed it against the ground, killing it. This had to be done quickly, for a gopher can bite. In this manner we caught about eight gophers, which we took to the place where we had left our lunch.

"It is now noon," said Stands-up. "I will go to the village and bring some fire." He ran off afoot. Meanwhile we other two boys went down into the timber, a quarter of a mile away, and brought some dry wood for fuel.

We were first to return, but Stands-up soon joined us bringing some coals of fire in a pail. We built a fire by placing the coals on the ground and laying little sticks on them, blowing the coals with our mouths. We added larger sticks and soon had a good fire. First we roasted the birds. A sharpened stick was thrust into the flesh at the vent and I held the bird over the fire with this stick, until it was roasted. The entrails were not drawn, neither were the feathers plucked.

When roasted, I broke the bird open and threw the entrails away. I plucked out the wing feathers and stumps of the smaller feathers with my fingers and threw them away also. I ate the bird, biting the flesh off with my teeth; I did not pull it off with my fingers. We ate none of the corn with the roasted birds at this time. Of course, each of the other boys as well as myself, roasted and ate a bird.

Then we roasted gophers. First we opened the gophers and drew out the entrails with our fingers. The lips of the opening made in the carcass of the gopher for the purpose of removing the entrails, were now skewered together by a spit thrust in near the tail. Fig. 14 will show how the belly of the gopher was skewered shut. The carcass was held in the fire until the hair was singed, when it was taken out and scraped with a stick to remove the charred hair. It was then held about five inches from the fire, being turned now with one side, now with the other, toward the fire. The spit was held in the hand.

Each boy roasted the gopher he ate. In all we ate five gophers, dividing them between us equally. We left three gophers unroasted; but before the fire died down, we singed the hair of these three and put the carcasses away with the corn we had brought for lunch, covering both gophers and corn with a blanket.

We buried the fire, digging a shallow hole and raking the coals into it. We covered the coals with dried horse dung, and put earth over this. We knew the fire would smoulder beneath until we wanted it again.

We noticed now that some of the herders were driving their horses to water, so we knew it was time for us to do likewise. I caught and unhobbled my grey mare; for when I began to snare gophers, I had taken the lariat off her neck.

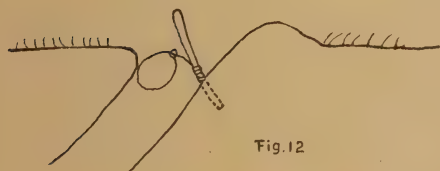
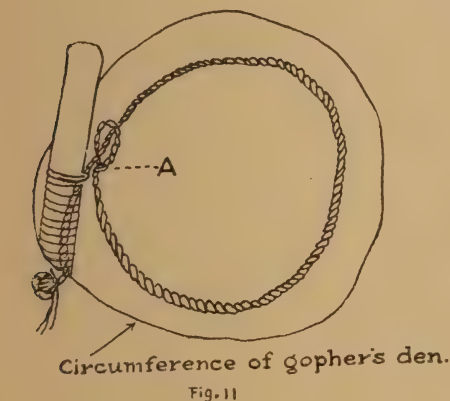


Fig. 11. A Snare set in a Gopher Hole.

Fig. 12. A Stick with a Snare bound to it set in a Gopher Hole.

Fig. 13. Noose tied in a Lariat for a Gopher Snare.

Fig. 14. Sketch of a Gopher with Skewer thrust through it, preparatory to Roasting over a Fire.

There was a pond not far away, but the water was not good to drink, as there were little worms in it. We watered our horses at the Missouri, and we ourselves drank freely and also bathed. Meanwhile we had tied our riding horses each to a good big stone, usually about a foot thick, giving the lariat a turn or two about it.

After our bath, we got our riding horses and went up the bank to find the rest of the herd already half way back to the grazing grounds. They were going along at a leisurely pace, stopping now and then to graze. We caught up to them and drove them to our camp again. Here I hobbled my mare, letting the lariat drag.

We now ate our parched corn. We opened the fire, and found the coals still glowing. We added fuel and roasted the three gophers we had saved, each boy eating one. The gophers were fat and made us feel good. I also parched two of the ears of corn I had brought. I made a little bed of coals, laid the ears of corn upon it, and rolled them about with a stick, until they were parched brown. I liked corn parched in this way. The two ears I had not used, I kept to take back home with me. "These are fine ears," I thought. "I chose them because they were the most select and I may want them again."

After our meal we began again to catch gophers; but as we had been hunting them all morning, they had become frightened and were slow to show themselves. "I know how to catch these gophers," said Garter-snake at last. "Once before when I was hunting them, they became frightened and did not show themselves, and we poured water down their holes. This made them come up."

"You go to the village and bring us a pail," said Stands-up and Garter-snake to me. I ran off to the village and soon returned with the pail. We also had the small one in which we had brought the fire. We filled the two pails at the pond and brought them to a gopher hole. We dug out the top of the hole with a knife to a depth of about seven inches and a diameter of five inches. This was to make a kind of funnel into which to pour the water. Garter-snake emptied one pail, I the second. We each stood ready with a stick. The gopher came up, ran back, came up again, ran back, then came up a third time; the fourth time, Garter-snake killed it with his stick. We found two gophers in this hole and killed them both. As they were dripping wet, we laid them in the sun near our fireplace to dry.

"Let us now shoot at a mark," said Stands-up. He took one of his wooden pointed arrows, thrust it by the feathered end into the ground, and upon the point stuck a small ball of horse dung. We went about thirty yards away. "Let us shoot two arrows each," said Stands-up. "Whoever hits the ball of dung shall have the two gophers we drowned out of the hole."

"You shoot first," said Garter-snake to me. I shot my arrows quite close to the mark. Garter-snake and Stands-up shot, neither hitting the

mark. The second round, Garter-snake shot first, Stands-up shot second, and I third. We used only sharp wooden arrows. As soon as one shot, he ran and picked up his arrow.

The third round, Garter-snake shot first, hitting the ball of dung the first time. "There," he cried, "I eat the two gophers." He disemboweled them and made ready to roast them. "Now," he said, "I will give you two boys one of the gophers to divide between you. But while I am roasting them, see if you cannot catch another, and I will have my share of it."

"Agreed," I cried. Stands-up and I filled the two pails at the pond, and listening a few moments, heard *w-s-s-s-s!* the hissing bark of a gopher. We looked and spied the gopher; he dived into his hole.

"It may not be a deep hole," said Stands-up, as he emptied the smaller of the pails which he held. The gopher did not come up. Stands-up filled the hole with water from the larger pail and as the gopher dashed out, he killed it with a blow of his bow. Drowned from their holes, gophers were easy to kill as they came up with their eyes shut, no doubt on account of the water.

I took the dead gopher to Garter-snake. "Here is the gopher you wanted," I said. "Good," he answered. "Now you roast it." I did so, and said, "We agreed to divide this gopher, but I think it would be better if we shot again for it." "Agreed," said Garter-snake. "Whoever shoots the farthest, shall eat this gopher." "Then I shall eat it," laughed Stands-up, as he shot. I followed, but my arrow failed to fly as far as his.

Garter-snake took up his bow. "I am sorry," he said, "that your arrows did not go farther. Now watch me!" He had a sinew backed bow. He put an arrow on the string, drew it, and though he aimed at a rather low angle, his arrow went farthest of the three. We had shot with wooden pointed arrows (Fig. 8*b*).

"Now," said Garter-snake, "this is my gopher; but I am going to divide it with you, only I will take the chest, the best part. You boys may eat the back part (sic). I don't like it anyway." We divided the gopher, Garter-snake eating the fore quarters, and Stands-up and myself the hind quarters.

It was now about three o'clock in the afternoon.

We again hunted gophers, but in another way. We set snares in the holes, but anchored them to sticks thrust in the holes while we went to play. The noose we used for a set snare was somewhat different from that which we fastened on the end of a lariat. The latter was a simple noose, like Fig. 13. The noose of a set snare was like Fig. 114; it had a tighter

eye, with a small sinew binding that would not slip back. When a gopher came out and found its head caught, it dived back into the hole, pulling tight both the main and the secondary noose, or eye, enclosed by the sinew binding. This kept the bigger noose from slipping open and the gopher could not therefore get away. The stick with the snare bound to it was set at one side of the hole, partly closing it (Fig. 12).

Another kind of snare was made of a bowstring. The noose end of the bowstring was laid in the hole. When the gopher was caught it was pulled out with the bow instead of a lariat.

As I have said, we three boys set snares in the gopher holes and went off to play. First we shot at a stick, or at an arrow stuck upright in the ground. This was a kind of gambling game.

Other boys who had been herding their horses some distance away now came up, and we had a sham battle on horseback. We used round-headed, or blunt, arrows (Fig. 8c). In the group were about ten boys, all of about the same age as my companions and I. Butterfly and Fingernail, I remember, were two of the boys.

We practised fancy riding. One boy would ride along, dismount, and mount again, at a gallop. Another boy stood with his bow ready; a second boy galloped up near him, dropped on the farther side of his horse and swerved past, while the boy with the bow shot at the rider's horse.

Sometimes I galloped up to a boy, hidden behind my horse with only my leg exposed over the pony's back. The boy could see nothing but this exposed leg as I approached him. I struck him as I would an enemy; but as I galloped away, he shot at me as he was now able to see my body. Of course, as I galloped away, my horse turned, exposing my body to the other boy's arrow.

The easiest way to mount a horse is to put the left elbow forward over the back of the horse, seize the horse's mane with the right hand, and leap up, lying on the abdomen transversely over the horse's back; then throw the left leg over and rise to a sitting position. In battle we could not be so deliberate as we ran the risk of being shot at by the enemy. We boys therefore practised leaping from our ponies and mounting them again at a gallop. Seizing the mane with the right hand, one leaped from the right foot, with the left foot lifted high, and vaulted on the horse's back at one bound.

Then we played that I was thrown from my horse, or that my horse had been killed; and another boy rode forward to save me, carrying me off on his pony with him. The rescuer stopped his pony; I ran forward,

placed both hands on the horse's hips and leaped up behind the other, very much as white children play leap-frog. Being trained to this, the horse did not kick.

Once in a battle, when I was about twenty-five years of age, Two-bulls' horse was killed by a shot in the head. Two-bulls leaped to the ground and ran. Our enemies numbered about nine hundred and ninety-five (sic.) We were but thirty. One of our men, Bears-in-water, was riding away, but at sight of Two-bulls' plight, reined in his horse and looked back. Two-bulls understood; he ran forward, put his hands on the hips of Bears-in-water's horse, leaped to the pony's back, and both he and Two-bulls galloped off in safety. All these games were intended as preparation for battle, for all the boys expected to go to war as they grew older. In these pony games I always rode my old grey mare.

We next practised archery for a long while, using our bows again as we thought we would in battle. We put a stick in the ground and shot at it, just to see who was the best shot; or, we took turns, each boy running forward, stopping suddenly, and shooting instantly. Very often a boy dashed past the mark, shooting at it as he ran. Sometimes the boys shot at one another, being careful, however, not to shoot hard. The boy who was the target tried to dodge the arrow, springing to right or left, or dropping suddenly, so that the arrow passed by or over him. Only blunt arrows were used, at a distance of twenty or thirty yards. We practised dodging arrows, because we expected to have to do so in war. This story will illustrate the value of expertness in such play:—

A man named Wolf-grass was going along afoot when he was attacked by an unmounted enemy, who wore a handsome costume and war-bonnet. This enemy shot again and again, but Wolf-grass put his robe over his left arm, and with his eyes just over the edge of the robe, dodged his enemy's arrows every time. His enemy advanced rapidly, and when close, sent a final arrow that lodged in Wolf-grass's robe. Wolf-grass struck him with his bow. Other Hidatsa came up and killed that enemy; and in a twinkling had cut him to pieces and torn the fine clothing from his body.

Of course, we guarded our horses all the time of our play, keeping our saddle horses close by and in readiness for any emergency. No matter what our play, we watched our herd and had our saddle horses ready.

At about half past four, we went to look at our gopher snares. We had set six snares and found two gophers caught in them; these we took out. "I do not believe that we want to eat these gophers today," said Stands-up. "Who wants them?" "I do," I answered quickly, and picked them up.

We now mounted our horses, drove the whole herd to the river and watered them. I cut out my bunch of horses from the herd, the other boys cut out theirs, and we all returned to the village, arriving a little before sundown.

I drove my horses to my father's door, dismounted, and went in. My father was lying on his bed. "Are all the horses here?" he asked. "They are outside," I answered. "Good, I will attend to them," he said.

The other members of the family had already eaten their evening meal. I spread my blanket on the earth floor between the two forward main posts of the lodge and my mother brought me my supper in a wooden feast bowl, with a big Rocky Mountain sheep horn spoon to eat it with. The mess was hominy of pounded yellow corn, boiled with beans, and seasoned with spring salt-alkali salt, gathered from the edge of a spring. It was a dish that I liked.

My father meanwhile brought his five best horses into the lodge for the night; the remaining seven he left without, in the corral under the drying stage.

WINTER CARE OF HORSES.

When I was eight years old, as nearly as I remember, we came from Like-a-fishhook village and wintered across from Independence in the timber we call Macúkākca-ámaci-midac, or Buckbrush-pit-timber. The name comes from an old eagle pit that was about two miles from the place we chose for our winter camp.¹

There is a tradition that some hunters found quantities of small eagle feathers caught in the buckbrush that stood there. The hunters did not know how the feathers came to be in the buckbrush, but they thought the feathers gave promise of good eagle hunting. They dug a pit and caught many eagles. Doubtless they put the pit on the west side of the hills that are there. One can see the place from the top of Independence hill, but I do not think anyone knows just the spot where the eagle pit lay, not now anyway.

¹John B. Dunbar in his account of the Pawnee writes:—

"They went into winter quarters in some place where water, wood and unburnt grass in abundance for the horses were to be had. Here they remained till forage became scarce, when another place was sought. If grass could not be found in sufficient quantity, they cut cotton-wood trees, and subsisted the horses on the bark and tender twigs. The return to the villages did not take place till young grass was started in the spring." (*Magazine of American History*, 1882, vol. 5, no. 5, 332.)

"The Aricaras do not provide any better for their horses than the other nations of the Missouri. They cut down the cotton wood (*Populus angulosa*), and the horses feed on the bark and smaller branches. I have seen instances exhibiting proofs that these poor animals have eaten branches two inches in diameter." Bradbury, John, *Travels in the Interior of America in the Years 1809, 1810 and 1811* (Liverpool, 1817), 165.

A man named Son-of-a-star was taken with smallpox this winter. He caught the disease from some Mandan, who were then wintering near what is now Fort Stevenson.

The next winter we camped again at Buckbrush-pit Timber. Two sons of a man named Stone, an Arikara half-breed, were killed. With other young men, they were hunting, and their horses strayed. The two brothers and a third young man remained behind to search for the horses. They camped for the night. The next day, as they were coming home, enemies surprised the three men and killed them.

I was ten years old the next winter, when we again wintered in Buckbrush-pit Timber. There were many buffaloes about; and when parties went out to hunt the herds, I used to go along to help take care of the horses. When buffaloes were sighted, the hunters hastened on to give chase, leaving me to guard the pack horses. I rode one, driving the others before me.

I wore, I remember, a cap of buffalo skin, with the fur in, and leggings. I did not wear a clout then; cloth for a breechclout was hard to get and a boy of my age did not wear a clout anyway. I was young and hardy and did not feel the cold; this, in spite of the fact that the weather was cold.

Some of the young men wore no shirts when chasing the buffaloes. They had painted their bodies and the skin behind their ears, with white clay. They hunted with bows and arrows. A few, it is true, owned guns, but preferred to save their powder for fighting enemies.

The next winter, for the fourth time, we camped at Buckbrush-pit Timber. I was eleven years old. Again there were many buffaloes for the hunting. Enemies stole horses from us this winter. We trailed them and slew one; the rest scattered and escaped to the north.

At the time these enemies stole our horses, I remember my father's family kept their horses in two places. The most valued horses, those that were our best and which we most often used, we kept in the lodge at night. Those less valued, and those which were rather wild, we left out in the hills, even at night; but some of these were kept hobbled. So also did other families. Now I will tell how the village herds were cared for in the winter camp, as I remember it from the time when I was eleven years of age, when we still went into winter camps; for later, when the buffaloes were killed off, we no longer followed our older tribal custom of going into winter camp each year.

Winter Lodges and Drying Stages. Our winter camp was of earth-lodges, but these were smaller and less carefully built than were our sum-

mer lodges. As in our summer village, there was a drying stage before every door, but it was smaller; and as it was intended to last only for the winter, it was rather carelessly built. It was like the summer corn-drying stage, but rougher. There were six posts, three on a side, and poles projecting upward supported stringers on which meat was dried. The floor was roughly made of poles and slabs, but not neatly as in the case of the summer stage.

A winter stage was not used for drying corn, of course, but for drying meat. Dried in the cold winter air, meat tasted differently from that dried in the summer sun, or in the smoke of a fire, and I liked it best. Meat hung on the winter stage, or anything laid on the stage floor, was out of reach of the dogs.

It was upon the floor of the winter stage, out of reach of the dogs, that my mother used to toss buffalo bones, to await the time when they could be pounded up for boiling to make bone grease or marrow butter. My mother, I remember, gathered up the leg bones to pound separately; for the bone grease so obtained was of a better kind, being yellow and never hardening. Bone grease from leg bones my mother called "foot-bone grease." Bone grease from shoulder bones and backbones was harder.

On the floor of the winter drying stage, also, were stored bundles of hay, or dried grass, for feeding the horses; but I will tell of that later.

Number of Horses and Lodges. I do not know how many lodges were in the winter camp. I remember we camped this year in three separate places in the timber; guessing at it, I should say there were perhaps, from ten to twenty lodges in each of the three camping places. There were perhaps, and again I am guessing, about two hundred horses in the tribe,¹ all, or nearly all, ponies. I think every lodge owned some ponies, but the number varied in the families.

Now all the best horses were kept in the family's lodge at night; but at the utmost, not more than ten could be so housed in one lodge.² The less valuable part of the village herds was left out in the hills. As I recollect, there were more ponies left in the hills, than were driven into the lodges, at night. As in the summer lodge, the ponies were kept in a pen, or corral, in the lodge.

¹" . . . They have about 250 or 300 horses in their three villages . . ." (Maximilian, vol. 2, 370).

²" . . . Inside of the winter huts is a particular compartment, where the horses are put in the evening, and fed with maize. In the daytime they are driven into the prairie, and feed in the bushes, on the bark of poplars. There are, probably, above 300 horses in the two Mandan villages. . . ." (Maximilian, vol. 2, 272).

Feeding Cottonwood Bark. We fed our more valuable lodge-kept horses the bark, tops, and small branches of cottonwood trees.¹ Such fodder we fed them every night when we could get it. I am speaking of course of our winter camp.

On pleasant days the women of the household went out every afternoon about two o'clock for bark. They commonly cut down two or three small trees, of perhaps a foot in diameter. They cut the rough, outer bark from the trunks; stripped the green, inner bark off in pieces, many of them as long as my arm and as broad as my hand; and lopped off the tender tops and smaller branches. Both bark and branches the women bore to the lodge with their pack straps. They often made three or four trips before all the bark was brought in; and they were careful to strip the trunks thoroughly, for if they did not, any horses in the woods were sure to browse on the bark and branches of the felled trees and the women's labor would be lost.

As this was the fourth year we had wintered in Buckbrush-pit Timber, the cottonwoods were becoming pretty well cut off about our camping place, so that the women often had to go some distance to find suitable trees. Sometimes the man of the family went out to help, cutting down the trees and carrying home the heavier loads.

Brought into the lodge, branches and bark were piled near the fire to thaw.² About sunset, they were piled under the corral railing for the ponies to eat. The horses ate chiefly at night, but some of the fodder was saved for the morning.

¹"... Drewyer arrived with the horses about the same time, the horses appeared much fatigued I directed some meal brands [bran] given them moistened with a little water but to my astonishment found that they would not eat it but preferred the bark of the cotton wood which forms the principal article of food usually given them by their Indian masters in the winter season; for this purpose they cause the tree to be felled by their women and the horses feed on the boughs and bark of their tender branches. The Indians in our neighbourhood are frequently pilfered of their horses by the Recares, Souixs and Assinniboinis and therefore make it an invariable rule to put their horses in their lodges at night. in this situation the only food of the horse consists of a few sticks of the cottonwood from the size of a man's finger to that of his arm. The Indians are invariably severe riders, and frequently have occasion for many days together through the whole course of the day to employ their horses in pursuing the Buffalo or transporting meat to their villages during which time they are seldom suffered to taste food; at night the Horse returned to his stall where his food is what seems to me a scanty allowance of wood. under these circumstances it would seem that their horses could not long exist or at least could not retain their flesh and strength, but the contrary is the fact, this valuable animal under all those disadvantages is seldom seen meager or unfit for service." (Lewis and Clark, *Original Journals*, vol. 1, 258-259).

²Boller, *ibid.*, gives us the following as to the winter care and feeding of horses:—"When they reach the lodges, the wood is thrown down and piled, the kettle put over the fire, and cooking goes on again. Then the cottonwood bark is to be thawed, and peeled in thin strips to feed the horses." (195).

"When the snow lies deep on the ground, and enemies are less numerous, (from the fear of being easily tracked,) most of the horses are left out at night, and only brought up when wanted for hunting. If the grass is plenty, and they can get a fair allowance of cottonwood bark, they may be kept in good order all winter; but if hard hunted, and brought up every night, by the time spring comes they are so reduced that only the very best horses can then 'catch' buffalo.

"Cottonwood bark is very nourishing, and if judiciously fed, a horse will fatten on it. A tree is cut down, the tender boughs lopped off, and after warming it to take out the frost, the bark is peeled and torn into strips of various lengths, resembling pine shavings; the knots and rough pieces are carefully thrown away, and it is then ready for use." (199).

I remember that the men of the household sometimes helped break the thawed bark into pieces about eight inches long which they piled with the branches under the railing for the ponies to eat. Sometimes, too, they helped strip off the bark from the larger limbs, after these had thawed.

The horses stood facing the fire as they fed. Twigs and smaller branches they ate readily; but limbs as thick as my wrist, they stripped of bark with their teeth. For this reason, the twigs and branchlets had been cut off and were piled by themselves. The thicker limbs, thus freed of branches, were more easily stripped by the ponies' teeth.

This custom of feeding cottonwood bark in the lodge was true of our more valuable horses. The year of which I am telling, we had nine ponies in my father's lodge. But this number might easily be broken. A sister or an aunt (either blood-related aunt or band aunt) might present valuables to the owner and receive a return gift of a pony. All the nine ponies of my father's herd that he valued, he brought into the lodge to care for and feed; for my father was a provident man, and was wise enough to bring his horses into the lodge every night.

We did not dare let our good horses stay out on the prairie at night, for enemies were frequently troublesome, and a foolish man might thus lose all his horses. Now we can turn our ponies out to pasture without fear of enemies; but it was not so in olden times.

We fed our horses no other kind of bark than cottonwood. It fattened the horses.

Feeding Dry Grass. I have said that the winter drying stage, used chiefly for curing meat, was a storage place for bundles of dry grass, or hay. On the stage in front of my father's lodge, I remember, there were usually two or three of these big bundles, or bales, lying in one corner of the stage floor. A small log was laid over them to stay them in the wind.

The women of a household would go out with iron hoes and clean away the snow from places where the grass grew thick, put it up into bales, and bring these in on the backs of ponies. Men often helped in this work. The grass sought was the prairie grass, not the red or river grasses.

The women gathered the grass at intervals as it was convenient or as they had need. The gathered store would be exhausted say, in ten days, and three more bales would be gathered and brought in. No great store was kept on hand; just two or three bales, as I have said, would be seen on the stage. Laid on the stage floor, the grass was out of reach of the dogs, for our horses did not readily eat hay that had been trampled or which dogs had fouled or run over.

Dried grass or hay was not fed to horses regularly, only when the weather was stormy or at night when enemies were about. It was an emergency feed.

We did not store cottonwood bark on the stage floor as we stored hay, for the bark would have frozen hard again even if thawed.

The women of our lodge used to go to the coulées a mile and a half away for grass; they bore the bales home on their backs or the backs of horses. The bales were bound with rawhide ropes, of which we always had an abundance.

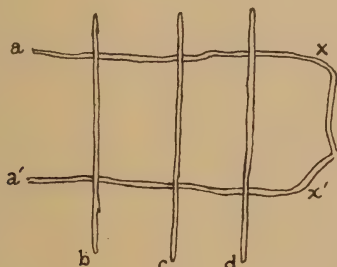


Fig. 15

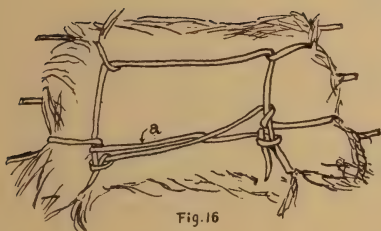


Fig. 16

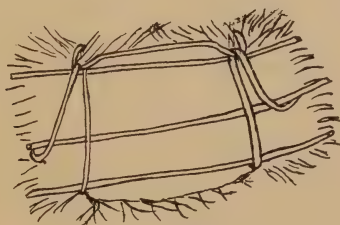


Fig. 17

Fig. 15. The Foundation for making a Bale of Grass. *a—a'*, a rawhide lariat; *bcd*, three sticks laid across the lariat.

Figs. 16-17. Obverse and Reverse of a Bale of Grass, showing Method of Tying.

Three sticks, each about three feet in length, were laid on the ground, with a rawhide lariat beneath, as in Fig. 15. Grass was cut with a hoe and heaped on the sticks, *b*, *c*, and *d*, for the bale. The ends *a* and *a'* were drawn over the bale and under the lariat at *x* and *x'*, passed over the ends of the bale, drawn under the lariat on the other side, and finally fastened each to the opposite band. (See Figs. 16 and 17.) The bale when bound was about three feet long and nearly as thick. One such bale was a load for a woman; four bales were a load for a horse.

When the bales were brought in, a man, or one of the women, ascended the stage by the notched-log ladder and the bales were passed

up to her. Sometimes the bales were piled on the floor unbound; at other times the bales were unbound and a log was laid over the hay for a weight.

Feeding Hay and Bark. If we wanted to feed the horses both hay and bark, the hay was laid on the ground under the corral rail first and the bark laid on top of it. If our store of hay was scant, a bit only was saved for morning feed, none being fed the horses in the evening.

Winter Pasturing. Horses of little worth, and wild unbroken horses, were allowed to run on the prairie in winter, notwithstanding the risk that they might be stolen by enemies; but even these horses were not wholly neglected. The owner would go out every day, separate his horses from the rest of the herd, and drive them to water. Once a day was enough in winter, as the horses ate snow.

If a blizzard threatened, the owner sometimes went out and drove his horses into the woods. He would catch one of his pack horses, mount, and drive the others before him. It was not necessary to lasso the pack horse; the owner spoke to it, and being gentle and well trained, it stood still, letting the man approach and mount. Even during a storm, the owner would go out, seek his horses, bunch them up, and water and care for them.

If enemies were sighted, all the horses of the village were driven into the winter camp. A man might then stable his best horses in his earth-lodge, putting his less valuable ponies under the drying stage. I have told you how our horses were stabled under the summer corn stage.

In winter, on a fair day when the weather was good, our hunting horses were usually driven to pasture out in the hills; but if it was suspected that enemies were about, as many of the horses as possible were kept all day in the village.

Watering the Horses. In winter we watered our best horses twice, about noon and again before sundown. A spring was the best watering place. Sometimes we watered horses at the river, but not nearly as often as at a spring. The horses drank a greater quantity at the spring, as spring water is not so cold. The herders also preferred a spring because it did not freeze over in winter and was easy to keep open. They would deepen the runway for four or five feet into a shallow trench. This filled with water and the horses were led up to drink.

For household use we did not often seek spring water; never, if we could get Missouri River water. Many of our villagers thought the Missouri River water strengthened them and kept them in health. For winter use our women fetched water from the river or brought in ice or snow in baskets, to melt.

Small-ankle's Narrative. Now I will tell you how my father cared for his horses the winter we camped at Buckbrush-pit Timber.

In the morning we arose before day and breakfasted about daybreak. For breakfast we ate boiled dried meat and drank the broth. We often dropped parched corn into the cup of hot broth to soften the grain and make it easier to eat.

The horses were fed by the men almost as soon as the family were up. After breakfast, soon after sunrise, the horses that had been stabled in the lodge over night, were driven into the hills to pasture. This duty commonly fell to the young men and boys of a household, but in our lodge my father took it as his own task.

He would drive our herd into the hills, perhaps three miles from camp, and look about for a good place for pasture, kicking away the snow at places to see if the grass was thick and heavy. Finding a good place, he would kick the snow off the grass with his feet; and the horses would do likewise with their feet. My father would not hobble his horses for fear they could not scrape away the snow with their hoofs.

My father stayed out all morning with his horses. When they had grazed a while, he hunted around and if he found another place where the grass was good, he drove his horses there to graze. If left to themselves, the horses would not know where the thick grass could be found; and they would go on in the direction they were headed or drift with the wind.

Thus my father spent the morning. After satisfying himself that all was well, he would come back to the lodge a little after the noon hour, leaving his horses at their grazing place, three miles away. Later, about two or three o'clock, he would send me out to take his place and watch the horses.

In the afternoon my father would help his wives cut down a cottonwood tree and help them bring in the bark. Often he felled the tree and let the women peel off the bark; this they did more expertly than men, for it was women's part to do ax labor.

Meanwhile, as I watched the horses, I went around seeking good places for them to graze, and driving them thither. If while they grazed, I found nothing else to do, I would go around the little herd crying and weeping and praying to the horses: "You are my gods. I take good care of you. I want to own many horses in my lifetime." My father had taught me to do so, saying: "If you pray thus to your horses, you will never lack for a herd; you will have good luck and never be poor." Sometimes as I cried and wept, real tears ran down my cheeks, and

sometimes not. Whether other boys did this while herding their horses, I do not know. My father, however, taught me to pray to the horses.

About sunset I drove our horses home, arriving a little after the sun had set. I would catch one of the horses, mount, and drive the others before me. I would approach the pony I wished to mount, and holding out my hand, palm down, I would say, "*Haⁿ, haⁿ, náhadě*, So, so, stay there!" And the horse would stand still for me.

Likewise, when I drove the horses to the spring to drink, I would say, "*Hi', hí'ědě*, Drink thou, drink ye!"

As I came in the evening to the lodge, I would call, "Raise the door!" Someone within, my father or one of my mothers would raise the skin door and let the horses in. I dismounted outside of the covered entrance, removed the lariat from my pony, and let him go in.

In bad weather, my father stayed out with his horses all day; or else he returned to them in the afternoon, instead of sending me, as he usually did when the weather was fair. When he stayed all day, he took no lunch with him, expecting to eat when he came home in the evening.

If a heavy storm was blowing, or a blizzard, the horses were not driven to the hills, but were kept in the lodge and fed what we had, hay or bark. However, even then, we let them run in the near-by woods to pick up what they could. They could eat wild-bean vines and ghost-whistle rushes and roseberries. The horses readily ate the berries off the tops of the rose bushes. They also ate buck-brush, or broom-brush berries; these berries turn almost black in winter. It was wiser to drive the horses into the woods on a stormy day; if left on the prairie, they were likely to drift with the storm.

Ghost-whistle rushes we thought very good feed for horses in the fall, when not frozen. In winter the rushes had ice inside of them and gave the horses diarrhoea, so that they sometimes died.

Sometimes, if there was a very bad storm, the horses were kept in the lodge all day; especially, if we had enough feed ahead to give them.

Feeding Corn. We fed our fast, or hunting horses a little corn, a cupful of shelled corn at a feeding. This was done both winter and summer; but not every day, only occasionally.

I have heard that hunters, when intending to chase buffaloes, would sometimes parch an ear of corn over the coals, and having broken the parched ear in three pieces, fed a piece to each of three horses. This made the horse run swiftly and strong. I never saw parched corn thus fed myself, but I know that some so fed it in my tribe.

CARE OF HORSES ON THE WARPATH.

It was the rule in a war party that every warrior should care for his own horse. Each man carried a hard, seasoned, ash-wood pin to picket his pony, in the evening a little after dark. A lariat was attached to the ash-wood pin, the other end being tied about one of the horse's forelegs; both forelegs were first hobbled. A pony was never picketed far from the war party's camping place. The picket pin with its lariat was carried, bound to the rear of the owner's saddle, as the party traveled.

A war party did not travel fast. We would send spies ahead who would ascend some high hill to see if the way were clear. The rest of the party followed. If the spies did not return to the main party, we took it as a sign that no danger was ahead; and feeling secure, we stopped whenever we wished and rested and grazed our horses. These stops were every two or five miles, or like intervals, and at these stops and again at night our ponies grazed. The ponies were watered when we crossed a stream or passed a spring. When out with a war party, we fed our horses nothing but what they could graze.

When running from the enemy, a warrior had to urge his pony at high speed; he did not give his horse any water, not a drop. He waited until the next morning, and then let his horse drink. If he watered his pony the same day, the pony was likely to die, especially if it was a hot day. We Indians said that if a horse was run all day when the weather was hot, the animal got a "burned heart." Such a horse, until it was well rested, had to be kept tied up or hobbled to keep it from getting water, else it would die.

PROTECTING PACK HORSES FROM MAGPIES.

Pack horses were apt to have sores on their backs where they were rubbed by the pack saddles. Indeed, nearly every pack horse had such sores. Our hunting horses were never thus troubled, for we took good care of them. In earlier times, our hunting horses were ponies, but swifter than those used for pack animals. The big horses we got later from white men were very swift, but were apt to give out after a run of three miles. Our hunting ponies were not as speedy as these white men's horses, but they had more endurance and could go all day without tiring.

Ponies with sore backs were troubled by magpies. The birds would pick at the sores with their sharp beaks, so that they did not heal. To keep the magpies away, we would tie an arrow, head down and feather up, to that part of the horse's mane that lies nearest its back.

To stay the pack saddle from slipping forward when the animal was going down hill, a thong was run back from the saddle and looped under the root of the pony's tail. This was apt to develop a sore under the tail; and this sore, also, was troubled by magpies. So an arrow was often tied to the tail also, in the same manner.

Only an arrow was used. A stick or branch tied to the horse's mane would not frighten the magpies, but an arrow did. We thought this was because an arrow had the [magic] power to do so. The arrow was without a head, just a wooden shaft sharpened to a point. It was made especially for the purpose, and nocked and feathered with three feathers as were other arrows. The feathers used were often of owl wings, which being spotted white and black, were more easily seen by the magpies. The feathers were left large; they were not trimmed narrow as were those of hunting arrows. The larger feathers more readily attracted the birds' attention.

Arrows were thus used to frighten magpies¹ in winter, chiefly. In summer the horses were fat and in good condition, and any sore healed quickly. In winter they were less vigorous; were perhaps, more often used; and our camp being in the woods, we were more likely to be troubled by magpies than in the summer village. But arrows were thus used in summer also.

Fig. 18 is a sketch made by Goodbird, of a pony with protecting arrows, drawn under my direction. Some careless families did not trouble to use arrows to frighten the magpies; wiser families, who took good care of their ponies, used them. A wise family might have two or three horses, each with an arrow on mane or tail.

HORSEGEAR.

Bridles. Bridles and halters were made by twisting a lariat in or about the horse's mouth. The lariat was seven or eight double arm-lengths (fathoms) long. Whether the lariat was used to make a single or double rein bridle, the free end was coiled up and inserted loosely under the belt of the rider, on the right hand side. This was of advantage to him, for if he was thrown from his horse he could seize the rein and save himself.

We observed this custom both in buffalo hunting and in battle. I never heard that the lariat was allowed to drag on the ground, in the

¹I never saw arrows used thus. In my time we bound a blanket over the horse's back to protect it from magpies—Goodbird.

hunt or battle. I should not think that a good way, for some other horse might step on the loose line and jerk the pony to a stop.

I have already described one form of bridle or halter (Fig. 4). I will now describe additional types of bridles and halters, in use when I was young.¹

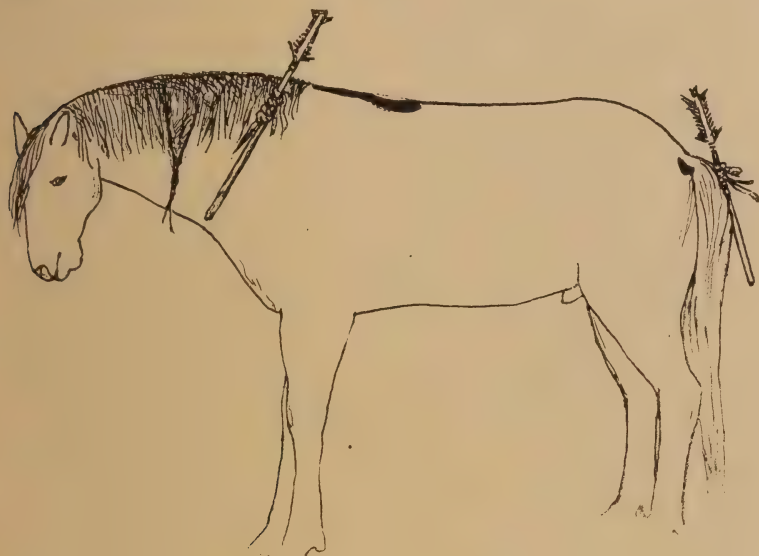


Fig. 18. Goodbird's Sketch of a Horse with feathered Arrowshafts tied to Mane and Tail as a Protection from Magpies.

Fig. 19a and b shows two bridles nearly alike, yet not quite identical. These forms were used when a little haste, but not much permanence, was needful; as, for example, in a horse race. Such a bridle, made by a single twist in the horse's mouth, was easily taken off again, and served excellently in a horse race, where it was necessary for the rider to use both reins. These two forms of bridle were not used in war. Fig. 20 illustrates another bridle, excellent for use in races.

Fig. 21 shows still another form of bridle. It was used especially for a horse with strong neck. It was a two-rein bridle; all war and buffalo-

¹The diagrams in this section were made as follows:—In each case, the horse's head, with open mouth, was drawn by Goodbird. A split stick, the branch of a tree, which had some resemblance to a horse's head was rigged up on Wolf-chief's table and the bridle or halter was made with a rawhide lariat over this stick. The drawing I completed myself from this stick model. This was not difficult, as I had but to draw the outline of the bridle-tie in the horse's mouth. Even then Goodbird often helped me as his fingers were more deft with the pencil than my own.—G. L. W.

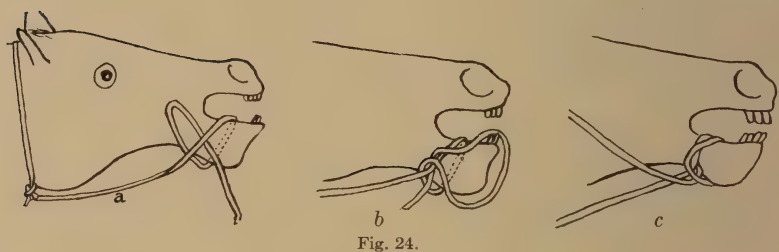
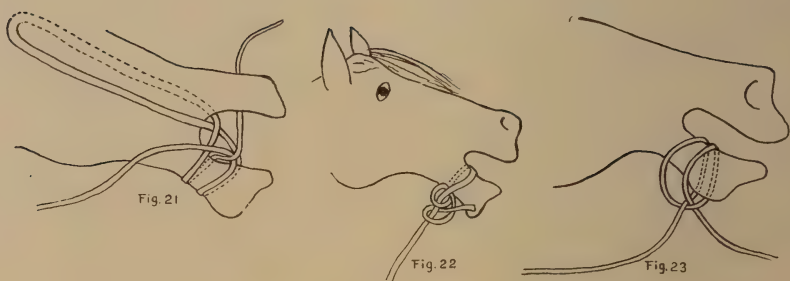
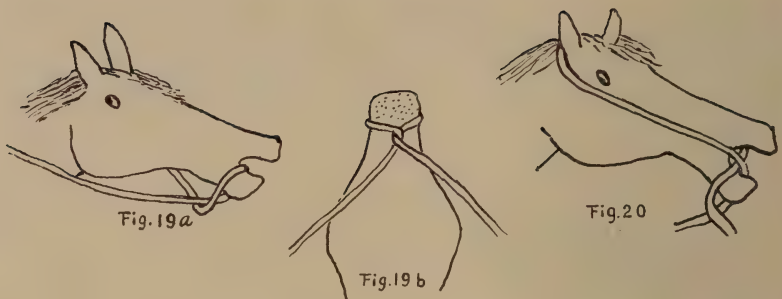


Fig. 19. Two Forms of the Racing Bridle, made by a Single Twist of the Lariat in the Horse's Mouth.

Fig. 20. Another Type of Racing Bridle.

Fig. 21. A Two-Rein Bridle used on a Strong-Necked Horse.

Fig. 22. Bridle used on a partially broken Pony in Racing.

Fig. 23. A Makeshift Bridle.

Fig. 24. A Bridle used in Swimming and Towing Horses.

hunting bridles had two reins. I do not think this type of bridle was ever used for riding short distances. Though it could be used on a gentle horse in battle or hunt, it was chiefly used on a strong-necked horse that did not readily obey the reins.

In the diagram (Fig. 21) of this bridle, the dotted lines represent the lariat on the farther side of the horse's head. The bridle is thus formed: The lariat is carried back of the horse's ears, crossed in his mouth, one end is carried clear around the lower jaw, passed under the other end on the right hand side, and carried back through the mouth again.

Fig. 22 is a bridle given me by Goodbird; it is not one I ever saw in old times. He says it was used in horse races on a pony partially broken, which was not much accustomed to having the lariat in his mouth. The bridle was formed by making two similar loops, lying not quite alike, as shown in the diagram, and slipping them over the under jaw.

The bridle shown in Fig. 24 was used chiefly for swimming horses over the Missouri, and held the horse by both neck and jaw. A horse, so bridled, was often towed by the owner, who was in a bull-boat. This form of bridle was sometimes used when one rode horseback, if the pony was rather wild: and it often served as a halter, for leading a pony. It was not used in buffalo hunting or in war.

To make the bridle, the lariat is knotted around the horse's neck; the end is carried to the animal's mouth, passed around under the lower jaw, and looped under the rein thus formed, Fig. 24a; then the loop is drawn out and passed around over the horse's lower jaw, Fig. 24b. The completed bridle is shown in Fig. 24c.

Finally, there was a kind of makeshift bridle which was used more like a halter than a bridle. If I happened to have no lariat with me, I tied a soft hobble over the lower jaw by an ordinary double knot, Fig. 23. The knot was drawn tighter than is indicated in the diagram.

Our Hidatsa name for bridle is *í-iduti-kidúpakě*, or mouth-doubled. A horse obeyed the bridle reins readily.

Lariats. I made my first lariat when I was about thirty years of age. We were hunting buffalo on the Yellowstone River, and one June day killed a cow. I took one side of the hide, saying to my brother-in-law, Son-of-a-star, "I am going to make a lariat (*iduti*)."
My brother-in-law and I returned to camp that evening bringing the hide. The camp was quite large, for all the Indians of our Reservation took part in this hunt.

In the morning at about seven o'clock, I took the green hide a short distance from the camping place. (I was not willing to wait until the hide was dry, for I knew that dry rawhide is more difficult to work than



Fig. 25



Fig. 26



Fig. 27



Fig. 28



Fig. 29

Fig. 25. Scraping the Hair from a Piece of Green Hide preparatory to making a Lariat.

Fig. 26. Softening the Hide.

Fig. 27. Another Stage in the Softening Process: Biting the Strip of Hide.

Fig. 28. The Completed Lariat.

Fig. 29. The Lariat before Trimming, looped for passing over a Horse's Head, so it may be dragged on the ground to stretch it.

green hide.) I trimmed the head and legs from the hide and cut it spirally into a long strip about four inches wide, much as you say a shoemaker cuts a shoestring from a piece of leather. The cutting of the hide was a delicate operation, for the strip had to be of uniform width. I did not get through until noon.

I went to camp for my dinner, boiled dried meat and raw marrow from the leg bones of a buffalo broken for the purpose. I ate the marrow with a stick. My hands were so tired from my morning's work, that after my dinner I went down to the river and took a bath and short swim, diving and cooling off my body, for the day was sunny and hot.

After my dinner, I cut two stakes of hard ash or juneberry wood, the diameter of a broom handle and about three feet in length. At a place twenty yards from our tipi, on the side toward the river, I staked the strip of green hide to the ground, fur side up (Fig. 25). Sitting at the right and grasping the strip with my left hand five inches from the farther stake, I began to shave the hair off the skin with my knife. A whetstone lay beside me on which I whetted my knife from time to time. As soon as I had removed the hair for about five inches, I moved backwards, and so on until the hair was all removed. I spent the whole afternoon thus, working and resting alternately.

Before leaving the strip, I greased it well on both sides, with dried fat from a buffalo's paunch. The lump of fat was slightly heated over the fire before being used. This greasing of the strip took about an hour and a half; and I left the strip for the night.

The next morning the strip had dried a little. After breakfast I began greasing it again. My friend, Took-a-gun, came over to me and said, "You are making a lariat, I see." Then he added: "You had better take it off the stakes now, for it is oiled enough. Also, it is better to hold it over a fire than to leave it in the sun, as the grease will soak in better and the lariat will not crack or break afterwards. To soften the strip you should whip it against a tree and then draw it back and forth under a rough stone on which you should stand. After that, double it and bite it with your teeth, at intervals of an inch, the whole length of the strip."

I did as Took-a-gun said. I took the strip of hide from the stakes, coiled it, and holding the coil over the fire, waved it back and forth lest the heat scorch it. It took but a short time to warm the strip and let the grease soak in; and I stretched it between the stakes again. It cooled quickly.

Then I passed the strip around the trunk of a cottonwood tree and drew it back and forth against the rough bark, as shown in Fig. 26. I coiled the strip again, and vigorously lashed it against the tree. Then I went to the river bank and got a rough stone. I passed the strip under the stone, stepped on the stone, and drew the strip back and forth under it. This done, I began to soften the strip by biting it (Fig. 27). I folded it hair side out, and bit along the edge, running it from side to side between my teeth, repeating this at intervals of about an inch. By noon I had bitten but a section of about three feet, and my jaws were weary of the labor.

For quite a while boys and girls had been standing about, watching me curiously. One-buffalo, a young man of my own age, joined them and I said to him, "I wish you would help me." "I will help you," he answered. After we had eaten our dinner, he began to work from the opposite end of the strip from where I had begun. When the strip had been bitten for its full length, we stretched it, one of us holding one end in his hands, while the other drew the strip through, doubled so that the two halves would run against each other. We also worked the flat sides, rubbing them one against the other to soften them. We completed our task about six o'clock in the evening.

I now began to sharpen my knife preparatory to trimming the edges of the strip to a uniform width, for the thin parts of the lariat had stretched narrow. As I was whetting the blade, Took-a-gun came by. "You have a good, pliable rope," he said. "What are you going to do with your knife?"

"I am going to trim off the wider parts," I answered.

"Don't do that," said Took-a-gun, "Cut a hole in your lariat a short distance from the end, slip the end through it, and insert a pin to form a loop (Fig. 28). Throw the loop over your horse's head, turn him in with the herd, and let the lariat drag for a day. Choose the horse that is the leader of your herd, so that the others following him, will be sure to step on the lariat. The strain thus put upon it will stretch it into final shape. Then you may trim your lariat with safety, knowing that it will not stretch narrow in any part again."

The leader of our herd was a black horse. I put the lariat around his neck the next morning as Took-a-gun bade me. I purposely chased the horse around all day. In the afternoon, when I watered the horses, I took off the lariat while the black horse was drinking, but put it on again. Not until evening did I remove the lariat. It was white, and on the surface was evenly rough, like a file, where the teeth marks were.

I now trimmed the lariat very carefully to a uniform width. This was not more than the width of my two fingers, and was about half that of the green strip as I first staked it out. I fastened an iron ring at one end, by slipping the lariat through an aperture cut in the end, the latter being first slipped through the ring (Fig. 29). The noose was made by passing the lariat through the ring. When I made a bridle of my lariat, I always made it with the ring end of the rope.

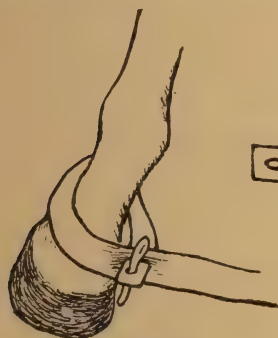


Fig. 30



Fig. 31



Fig. 32

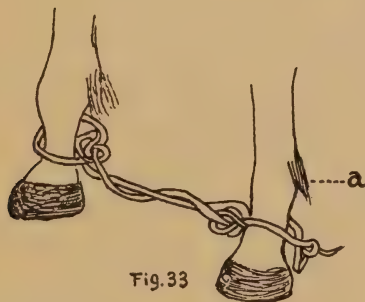


Fig. 33

Fig. 30. Rawhide Hobble fastened with a Wooden Pin.

Fig. 31. A Hobble for Two Feet, tied only around One.

Fig. 32. Looped Ends (x and y) of Soft Tent Skin Hobble through which other Hobbles are passed to be carried.

Fig. 33. Method of Tying a Hobble of Soft Tent Skin. To prevent chafing, it is always tied below the joint at a.

Hobbles. In olden times, we used hobbles a great deal. A good hobble was made of a strip of rawhide about the width of my first three fingers. A slit was cut in one end; a second slit was cut a little farther back, at a distance permitting the part toward the end to go around the horse's ankle. The slit end was then drawn through the second slit and

anchored with a wooden pin (Fig. 30). The other end of the hobble was slit in the same way so that both fore feet of the pony could be enclosed. When thus hobbled together, the horse's fore feet should be about fifteen inches apart. If the feet were bound too close together, a horse could move rather rapidly by lifting both feet at once in a kind of gallop; but if his fore feet were bound about fifteen inches apart, the horse would instinctively use but one foot at a time, and could not go very rapidly. This kind of hobble was called *itsi-iduti-aku-mida-ikatiṣṣe*, foot-tie-of-wood-pin, or wooden-pin foot-tie. Sometimes when a horse was in the field, it was desired to free him from the hobble, which, however, might be tied again later in the day. In that case, the hobble was removed from one foot and wrapped around the other, fastened as shown in Fig. 31.

Another kind of hobble, called *itsi-iduti-aku-aticia* or old-tent-skin-foot-tie, was made of a strip of soft tent skin about two fingers wide. It was tied around one foot just below the joint with a simple double knot, and the two ends were twisted and tied again around the other foot (Fig. 33). Neither form of hobble was ever bound about the horse's foot above the joint (*a*) because the horse would then be likely to chafe his skin.

When I drove my horses to water, I gathered up four or five pairs of hobbles of the first-mentioned kind. When I took them off the horses, I put the pins back as if they were still on the horses' legs, making loops as in Fig. 30. It was always my custom to keep one horse hobbled with a soft tent skin hobble. This last I untied, resolving it into a long thong which I passed through both loops (*x* and *y*, Fig. 32) of each of the other hobbles, and then tied the thong around my horse's neck for safety. I did not put the thong through only one of the loops, as for example, *x*, because the other loop, hanging down, might be steeped upon by the horse and he might be injured.

*Saddles.*¹ Excepting the short account below, no good description was obtained of the making of saddles. From casual references by Wolf-chief to the form and use of saddles by the Hidatsa, the following was gleaned:

There were two forms. The hunting or racing saddle was a pad of soft skin stuffed with antelope hair; even this was usually dispensed with in battle. A specimen of the Hidatsa racing saddle is in the Museum, and the writer photographed a pony with such a saddle, as the animal stood hitched before Wolf-chief's cabin. Fig. 34*a* is a tracing from this photograph.

¹See pp. 280, and 299.

The horn saddle described below is spoken of as a "woman's saddle" or a "pack saddle." A buffalo hunter saddled his hunting horse with the pad, or hunting saddle, putting horn saddles on the pack horses which he took along to bring back the meat. A beautiful specimen of the latter form of saddle, covered with a painted parfleche, was purchased of Wounded-face and sent to the Museum. Saddles were also made with wooden frames, presumably shaped like those with horn frames.

In 1915 Wolf-chief gave details as to the making of deer-horn saddles, which, for the sake of completeness, are reported here:—

When deer-horns are collected they are found to vary considerably in shape; some are straighter than others and many are more or less irregular. The kind that curves over in a half circle were always sought for saddle bows. If a man found one, or took it from a deer he killed, he saved it. If from a slain deer, he removed it by chopping around the root of the horn with his knife and breaking it off. The prongs or tines were chopped and broken off in the same way, but sometimes they were broken off with a stone and the irregularities of the stump smoothed out with a knife. It was not easy to get a perfect antler as they were apt to show all kinds of crooks.

When the horn was reduced to a mere bow, the ends were bevelled and three grooves cut on the outer surface, but not under. This was for the forward bow of the saddle which was nearly upright. The rear bow which curved slightly inward was cut in a similar manner, but shorter.

Then two cottonwood boards were cut for the sides and lashed to the bows. The ends of the bows were bound down to the boards with green thongs drawn through three holes and around the three grooves on the ends of the horn bows. The horn bows were covered with a strip of green hide sewed beneath with sinews. The boards also were covered with green hide and sewed with sinew on the under side. (Fig. 35 *a*.)

A strip of green hide was next swung between the two horn bows, to sit upon. The saddle was held to the fire or in the sun and when it was slightly dry, the hide was smoothed, polished and worked with a small stone. Thus, alternately dried, by fire or the sun, and worked with a stone, the strip did not shrink when finished. Such a saddle was excellent; one could load the meat of a whole buffalo on a well-made horn saddle.¹

¹A similar saddle is described by Bradbury, *ibid.*, 128-129.

"... The favorite buffalo-horse trots along loose, carrying only a light skin pad stuffed with deer or antelope hair. The hunter rides one of his pack-horses, in order that his 'runner' may be fresh for the severe labor of the chase." (Boller, *ibid.*, 225.)

Saddle Skins. Skins were placed under a horn saddle to keep it from galling a horse's back. One saddle skin, laid fur side down, was used if the horse bore only his rider. If a heavy load was packed on the animal's back, four or five saddle skins, or half a folded tent skin,



Fig. 34.

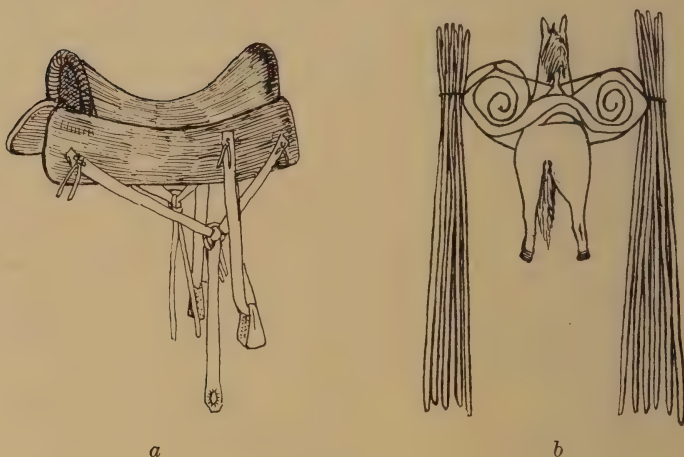


Fig. 35.

Fig. 34. *a*, Pad or Racing Saddle; *b*, Flaying a Buffalo preliminary to Preparation of a Saddle Skin.

Fig. 35. *a*, Pack Saddle with Deer Horn Frame; *b*, Transporting a Tipi Cover and Poles.

was used. The name for saddle skin is *edipu-dáxukě-ódaxpi*, or belly-saddle-skin. Such a skin had short hair, as the hair on a buffalo's belly is always short. A saddle skin was thus taken. When a buffalo had been killed, it was turned over on its back, legs in air, and stayed in this position by turning the head to one side, letting it lie on one cheek

with horn to the ground (Fig. 34*b*). The belly skin was then easily removed. A yearling or a two-year-old buffalo was thus flayed, or a cow also, if the whole hide was wanted for a tent skin.

Carrying Tipi Poles. In olden times, tipis were transported sometimes by dogs, sometimes by horses. When a pony was used, six poles were bound on one side of the animal, and six on the other. About two feet from the smaller end of each pole, a hole was burned, through which the tying thong was passed. These holes were burned with a red hot piece of iron, about the size of a lead pencil. Before we got iron, instead of holes, I think we must have made grooves around the poles. I think this was the custom, because some people did so even in my own time. The groove was cut just deep enough to receive the thong. To tie each group of poles, the thong was passed within this groove around the first pole, then around the second pole, and so on. They were then bound together simply by tying the two ends of the thong. The tying for both grooved and perforated poles was the same.

A sort of makeshift travois was sometimes made by binding sticks or wooden bars transversely across the two bundles of tipi poles, at the place where a travois basket would ordinarily be bound to the frame of a horse travois. In this case, the poles were bound together in a cylindrical bundle on each side of the horse, while ordinarily they were let drag loosely and spread out behind fan-fashion. On a makeshift travois of this type, a light load could be placed; but never a heavy burden, that would spring the poles and make them crooked. Good tipi poles were of poplar, which was difficult to get. Cottonwood poles which we could cut on the reservation, we thought not so good.

The tipi cover was often loaded upon the horse's back. Fig. 35*b* is a rude diagram made by Goodbird, to show how a tipi was carried. The cover was rolled up and slung over the pony's saddle, half on one side and half on the other. The two bunches of tipi poles were bound to the outside of the tent and allowed to drag on the ground, as shown in the diagram. They were more easily dragged thus, bound to the outside of the folded cover.

A pony thus laden with tipi cover and poles was led by one of the women of the family when on the march. Sometimes the woman rode ahead on a pony and led the pack animal; sometimes she walked beside him, leading him; but he was always led, a rope being thrown about his neck for the purpose. The woman had to be careful that no pony following her own stepped on the ends of her poles and injured them.

On the march, a woman might also carry a light load, as two or three blankets or a robe. Such a load she carried on her back with her pack strap, which had both a shoulder and a forehead band. Though the headband was not generally used, it was of help sometimes, as when the woman wished to rest her shoulders. If the headband was kept constantly in place, it would fret the skin of the woman's forehead.

The Travois. For a description of this apparatus and its use see the account of a hunting party traveling with horses, mules, and dogs (pp. 275-276, 280).

NAMES FOR HORSES.

Our Family Herd. At the time when I began to herd horses, our family owned about a dozen. There were three mares, which had no names as I recollect; one was a yearling and another a two-year-old. Two of the herd were fast horses, good runners and used only for buffalo hunting and chasing enemies; and four were working horses. These four and the two fast horses were geldings. Some of the working horses were very slow and lazy. We had also one stallion; he was a gentle horse, used both for riding and working.

We named horses for their peculiarities, their color, marks upon the body, or the like. I will now try to give you the names of those of our family herd, with the meanings. Our two fast horses were called:—

Tsítataki-itsúwuckac, or Deer-horse; so named because on the hunt he could overtake a deer or antelope.

Ēdatakie, or White-belly; from *ēdi*, belly, and *atáki*, white; so called because he had a white belly.

The four work geldings were called:—

Tsítanëxic, or White-tail.

Tisdi-cëpic, or Dark-bay.

Tsadic, or Light-bay.

Cípicëc, or Black.

The stallion, we called Núwakcëc. We always called the stallion of the herd by this name. The word means "stallion," but we used it like a proper name.

Besides the foregoing, we had a big mare that we called *Mika-akú-i'tiac*, or Female-that-is-big. This term we used about the same as a proper name; it may be translated, Big-mare.

Other Names. I will now give you the names of some of the village horses as I remember them:—

Naáxpihě-atákie, or White-mane (Mane-white).

Itsúwucka-aku-ita-tákie, or Horse-with-face-white.

Itsúwucka-aku-íxidu-atákie, or Horse-with-forehead-white.

Other names in English are as follows:—

Split-ears	White-ears
Dark-face	Thin-face
Yellow	Big-belly
Long-hoof	Red-ears
Big-ankle	White-tailed-grey
Thin-bay	Spotted-one
No-ears	Yellow-spotted-one
Long-ears	White-spotted-one
Horse-that-runs-in-two-gaits	Blackie
Bob-tail	Black-spotted-one
Much-mane	Red
Gentle-horse	Red-spotted
Broncho	

Age Names. Certain terms denoting a horse's various ages, we used almost as if they were proper names.

Thus, we called an old mare Míka-aku-xíěc, or Female-that-is-old. A colt under a year old we called Awa-hida-nákac or Year-new-youngling; we may perhaps translate, New-year-youngling or One-year-youngling. A colt in his second year we called Awa-fkupa-nákac or Year-second-youngling. A two year old colt, one that had completed two years, or two winters, we called Ita-wáda-dupác or His-winters-two (or His-winters-are-two).

These were not, strictly speaking, names, as we did not use them in addressing the horses. We did use them in speaking to one another in the lodge, and everyone recognized the terms, or names, as belonging to particular animals. However, horses did not learn to know their names as did dogs, nor do I think they are as intelligent as dogs.

DOG CULTURE.

The best systematic study of the Indian dog is the recent paper of Glover M. Allen, *Dogs of the American Aborigines*.¹ Among others this author distinguishes two types of dog for the Missouri country, the Plains-Indian dog and the Sioux dog. To quote:—

Characters.—Size medium, slightly smaller than the Eskimo Dog; ears large, erect; tail drooping or slightly upcurved; coat rather rough, usually 'ochreous tawny' or 'whitish tawny,' or sometimes black and gray, mixed with white.

Distribution.—Western North America from British Columbia south perhaps to the Mexican Boundary and eastward through the Great Plains Region.

Notes and Descriptions.—It is apparently to this dog that most of Lord's description (1866, 2, p. 222) applies in his Naturalist in Vancouver Island and British Columbia. So impressed was he by the general similarity of these dogs to coyotes, that he believed the one derived from the other, and makes one general description do for both, with the addition that in the dog the hair "becomes shorter, softer, and more uniform in coloration, although the tail retains its bushy appearance." The general color is an "ochreous gray," the hairs tipped with black, those of the neck tricolored, having their "lower two-thirds reddish brown; then a ring of white, and a black tip." This pattern gives "a most curious speckled look" to the bristling neck of an enraged dog. Coues (1873) was equally impressed by the general resemblance of these dogs of the Plains Indians to coyotes, and considered the two animals essentially the same in structural points, though he thought it "unnecessary to compare the skulls." Indeed, he accepted it as unquestionable that in every Indian community mongrel dogs are found, shading into coyotes in every degree."²

The Sioux dog:—

Characters.—A large wolf-like dog, probably closely related to the Plains-Indian Dog but larger and gray rather than tawny in color.

Distribution.—Probably the north-central plains area, from the Missouri north perhaps to Saskatchewan.

Notes.—No doubt the carrier-dogs differed slightly among the various tribes of Plains Indians covering the wide stretch of country from Northern Mexico to Saskatchewan, so that local breeds of the general type could be distinguished did we have opportunity to compare them. Morton (1851), who tried to obtain information from frontier officers in the earlier half of the last century, quotes a letter from H. H. Sibley, a correspondent in Minnesota, who avers that "the Indian Dog differs much in size and appearance among different tribes" but that they all have small, sharp, erect ears. He particularly recalls that "among the Sioux, it is large and gray, resembling the Buffalo Wolf." Packard (1855) has mentioned "whitish tawny". . . .

Figures probably representing this dog, are shown in some of the plates of Catlin's Indians (1841, colored edition, 2) small to be sure, but showing the gray

¹*Bulletin, Museum of Comparative Zoology at Harvard College, in Cambridge*, vol. 63, no. 9, Cambridge, 1920.

²Allen, *ibid.*, 449.

coloring, large erect ears, and scimitar-shaped tail carried out behind. His Plate 103 in 2 is a spirited drawing illustrating a dog-fight in which all the dogs of the party, though burdened with their loads "*en travois*" are rushing to participate.¹

If the ideas of our informants are to be credited, the Hidatsa dog was approximately of the Sioux type (pp. 197, 204, 212, 213).

Maximilian says of the Sioux dogs:—

. . . Smaller articles were conveyed by the dogs. . . . The dogs, whose flesh is eaten by the Sioux, are equally valuable to the Indians. In shape they differ very little from the wolf, and are equally large and strong. Some are of the real wolf colour; others black, white, or spotted with black and white, and differing only by the tail being rather more turned up. Their voice is not a proper barking, but a howl, like that of the wolf, and they partly descend from wolves, which approach the Indian huts, even in the daytime, and mix with the dogs.²

. . . A great number of Indians' dogs surrounded this village, which did not differ from those we have already described. Many of them were perfectly similar to the wolf in form, size, and colour; they did not bark, but showed their teeth when any one approached them.³

On the other hand, Maximilian seems to distinguish between the Hidatsa dog and the Sioux type, as:—

. . . When they quit their huts for a longer period than usual, they load their dogs with the baggage, which is drawn in small sledges, made of a couple of thin, narrow boards, nine or ten feet in length, fastened together with leather straps, and with four cross-pieces, by way of giving them firmness. Leather straps are attached in front, and drawn either by men or dogs. The load is fastened to the sledge by straps. . . . The Mandans and Maniteries have not, by any means, so many dogs as the Assiniboinis, Crows, and Blackfeet. They are rarely of the true wolf's color, but generally black, or white, or else spotted with black and white. Among the nations further to the north-west they more nearly resemble the wolf, but here they are more like the prairie wolf (*Canis latrans*). We likewise found, among these animals, a brown race, descended from European points, hence the genuine bark of the dog is more frequently heard here, whereas among the western nations they only howl. The Indian dogs are worked very hard, have hard blows, and hard fare; in fact, they are treated just as this fine animal is treated among the Esquimaux.⁴

Brackenridge, who resided for a time with the Arikara, close neighbors of the Hidatsa, gives the following:—

The dogs, of which each family has thirty or forty, pretended to make a show of fierceness, but on the least threat, ran off. They are of different sizes and colors. A number are fattened on purpose to eat, others are used for drawing their baggage. It is nothing more than the domesticated wolf. In wandering through the prairies, I have often mistaken wolves for Indian dogs. The larger kind has long curly hair, and resembles the shepherd dog. There is the same diversity amongst the wolves of this country. They may be more properly said to howl, than bark.⁵

¹Allen, *ibid.*, 455.

²Maximilian, *ibid.*, vol. 1, 316.

³Maximilian, *ibid.*, vol. 1, 318.

⁴Maximilian, *ibid.*, vol. 2, 273.

⁵Brackenridge, H. M., *Journal of a Voyage up the River Missouri; performed in 1811* (Baltimore, 1816), 141-142.

Unfortunately the early artists, Catlin and Bodmer, have not given us good pictures of dogs; we note, however, a sketch by Kurz.¹

The above observations were made a few years before the birth of the author's oldest informant and make it clear that even then, the aboriginal breed was well on the road to extinction. In any case, these statements fully confirm the words of an informant, "We have none of the old pure breed left on the Reservation."

ORIGIN.

In August, 1913, Wolf-chief, an Hidatsa born about 1849, related the following tradition concerning the origin of dogs:—

My father once told me the story of how dogs began, but I do not remember it very well. There was once a man named Yellow-dog whose medicine, mystery, or supernatural power, was a dog. You know that in old times every Indian had a protecting power, supernatural influence, or "medicine" as white men call it. Yellow-dog's medicine was a dog. His father was a wolf. As the story of Yellow-dog relates that the wolf was red-chested, it was evidently a supernatural wolf, for there are no wolves that have red chests naturally.

All the colors seen on the squashes in our native gardens were to be found on the dogs we had in the old times. They were yellow-chested, spotted, brown, and of other colors.

The mother of Yellow-dog, was an Indian woman, an Hidatsa. I do not know how she came to marry the red-chested wolf. Yellow-dog also had supernatural power from an eagle and when the Sun's wife was in the village Yellow-dog got after her.

There were four dogs: Ixi-tsě'c, or Forehead-raised, meaning that the dog's forehead did not lie flat, but was convex and swelled outward like a lump; Âti-kééc, or Lodge-digger; Mawákua-naxpic, or That-hung-high-catch-with-the-mouth (so named because he could jump high and catch drying meat on a high rack) or High-catcher; and Ictā-dópac, or Eyes-four. This last we may translate, I think, Four-eyes. This dog was so called because he had small dark spots over the eyes that made him look as if he had four eyes. He was very gentle.

The story goes that all our squashes obtained their colors from dogs. Some squashes are pure white and others have the same colors as our old

¹Kurz, Friedrich, *Aus dem Tagebuch des Malers Friedrich Kurz über seinen Aufenthalt bei den Missouri-Indianern*, 1848-1852. Bearbeitet und mitgeteilt von dem Neffen des Malers, Dr. Emil Kurz (Bern, 1896).

breed of dogs. But as I say, I do not know how they increased, or how the dogs got their colors.

Yellow-dog taught our people about dogs. "That dog, High-catcher," he said, "jumps up and seizes meat on the drying stage. If you do not like him because he leaps up and steals your meat, kill him.¹ That dog, Forehead-raised, has a bad temper and is surly. If you do not like this, kill him. You may also kill, Lodge-digger, for he, also is a bad dog. When he digs into the earth roof at the foot of the lean-to poles on the outside of the lodge, it is a sign that someone within the lodge is going to die or that enemies or Sioux will kill somebody. But do not kill gentle dogs like Four-eyes. Dogs are magic friends. They have mystery power. When I die I shall go up in the sky; the village dogs will call to me early in the morning, about daylight, like coyotes and again at noon; and in the evening they will howl and bark at me."

We did as Yellow-dog told us. In my own day, I know that it was a rule to kill any dog that dug outside at the foot of the earth-lodge roof. We also killed any dog that was surly, but we kept the dogs that were gentle and did not steal.

BUFFALO-BIRD-WOMAN'S NARRATIVE.

In August, 1913, the following statements were made by Buffalo-bird-woman, an Hidatsa, born about 1840:—

THE PUPPY.

Dogs bred at any time of the year. As we Indians knew, gestation lasted for two months. As soon as we noticed that a bitch was gravid we were careful not to put a travois on her or kick her abdomen or otherwise hurt her, lest her young be injured. Some bitches were very surly and cross when gravid; others were always gentle, whether gravid or not.

Usually, there were from seven to ten puppies in a litter. As we wanted only big dogs, and those of the first litter never grew large, we always killed them, sparing not even one. From the second litter, we kept three or four of the puppies with large heads, wide faces, and big legs, for we knew they would be big dogs; the rest we killed.

In order that the mother might stay in good condition, we never saved more than three or four puppies out of any litter. When there were

¹"Those invaluable but greatly abused members of the community, the dogs, take advantage of the temporary inattention of the women to prowl among the lodges, in hopes of being able to steal something edible. . . . The disturbance, however slight, is sufficient to draw the attention of one of the squaws, who picks up whatever comes first to hand, be it a billet of wood, a kettle, or an axe, and hurls it at the assembly with the complimentary remark 'Nar-har-ah-suk-kuk,' (Go away, you fools,) which advice is promptly heeded." (Boller, *ibid.*, 68-69.)

too many to nurse, the mother became poor in flesh, very often grew weak and sometimes died. Of the three or four puppies saved, we might choose one bitch and the rest males.

Sometimes a neighbor might ask that a puppy be kept for him. In that case one of those we had intended to kill was left alive with the rest. We always gave such a puppy as a gift and never expected anything in return.

Puppies were born blind, but after four nights, their eyes opened. When ten days old, their teeth appeared. At this time the neighbor for whom one of the puppies might be saved would come to the lodge for it, for it was now old enough to be given away.

After they were ten days old, puppies began to eat food that we gave them; but before we fed them, we smoked them. We burned some of the larger kind of sage on some coals, and I, or someone of the family, held a puppy with his head in the sage smoke (Fig. 36*a*) until white saliva, like soapsuds, dribbled from his mouth. Then I took the puppy from the smoke. Lifting him up, I said, "I want to test this dog to see if he will carry a tent" and then let him drop a few inches to the ground. If the dog fell over, I knew he would not grow up strong, but if he held his place and did not fall, I would say, "Hey! hey! this dog will carry my tent." Smoking the puppy was good for him; it gave him a good appetite so that he ate anything and everything, with no worms in his intestines.

For food for the puppies we cut any kind of meat into small pieces and boiled it. After a meal, scraps of cooked meat were cut up and given to them. We would not give puppies raw meat, because if we did, they would have worms. This rule applied only to puppies; to old dogs we gave either raw or cooked meat. Puppies should be fed often so as to keep them fat and make them grow big.

When a puppy was ten days old, his teeth appeared, growing sharper and sharper every day. Very soon he began to bite his mother's teats; then she would grow restless and wean him. As a puppy grew up he sometimes developed a surly disposition. He would bite and snap at people or fight other dogs. Such a dog was killed. Sometimes the owner would kill him with the blow of a stick or he would ask some young man to shoot him with a gun or arrows. We never ate the body of a dead dog nor saved the hide. The carcass was taken down to the Missouri River and thrown over the bank.

Wolf-chief adds the following note:—

The last born of a litter of puppies was always the smallest and was named Nákaka, or, "Last One." The word *nákaka*, was always used in referring to the last born; even in a family of children the smallest was called Nákaka.

CASTRATION.

Male dogs were castrated to make them gentle and keep them fat. Uncastrated dogs were apt to be surly and would run away with other dogs that came around the lodge. A dog was castrated when about a year old; but if fat and in good condition, he might be castrated much earlier; but the year age was the rule. It was not necessary to castrate sooner, because dogs did not breed until they were about a year old.

My aunt's husband, Blacks-his-shield always castrated the dogs of our family. Because he was our relative, he made no charge for doing this; if any other family hired him, they had to give him a big dinner.

The dog was muzzled by a thong bound about his jaws; his forelegs were bound together; and a thong was passed around his body and over his forelegs. A robe was thrown over him and his hind legs held firmly by an assistant while the castrator worked, opening the skin of the scrotum and pulling the testicle from the dog's body, without cutting it.

Wolf-chief adds the following supplementary data:—

To castrate puppies two men wrought together. One, sitting on the ground, legs apart, held the puppy by its legs, with its back to the ground, one foreleg and one hind leg in each hand, and the puppy's head toward him; the other, the castrator, cut out the scrotum with a knife and drew out the stone in its sack. The inner sack was also cut open and the stone pulled out with the white muscle to which it was attached and which was an inch or two long. This was drawn out, not cut off. During the operation the puppy howled, but was too young to bite or otherwise injure the operators. One of the male puppies of a litter might be saved uncastrated, for breeding, if the owner had need.

FEEDING.

As dogs became adult we fed them meat and also cooked corn for them, boiling it into a kind of mush. Anything that turned sour in the lodge, like boiled corn, we gave to the dogs. Any food that was spoiled or for some reason was rejected by the family, was set aside for them. If, on the hunt, an animal was killed that was lean and poor in flesh, it was given to the dogs. A man who killed a buffalo, saved the parts that he did not want for himself and gave them to the dogs. Sometimes he would gather up for his dogs the cast-away pieces of another man's butchering.

The tough outside part of a buffalo's ham was stripped off for the dogs, while the meat near the bone was kept. The parts of the leg below

the knee were also thrown away or given to the dogs. When buffalo were abundant, the hunters kept only the best parts, for when two or three buffalo were killed not all the meat could be carried home. The next day after the killing anyone who wished meat for his dogs could go to the place where the carcasses were butchered and get the cast-away pieces.

In times of scarcity the people cared for their dogs as best they could. They ate the bones that were crushed and broken in cooking and then thrown away. The dogs could chew and gnaw at them and get some food in this way.

KENNELS.¹

Ordinarily, if the weather was warm, dogs slept outside of the lodge. If the weather was windy, they usually huddled down on the ground on the lee side of the covered entrance to the door of the earth-lodge. They also very commonly lay on the roof of the covered entrance or on the flat part of the roof of the lodge that surrounded the smoke-hole. Our village was rather crowded and the roofs of the lodges were used by both men and dogs as lounging places, so that one often saw dogs sitting or lying on them. If the night were quite cold, dogs might be permitted inside of the lodge, in the rear beyond the fire; but usually the dogs were kept out of the lodge.

When a bitch was about to litter, a kennel about three and one half feet high, with a circular floor about four feet in diameter, was often built. Poles were united at the top as for a tipi and grass spread over this framework. Then a few small logs were leaned against the grass to hold it down. No earth covering was thrown over it. The floor inside was bedded down with grass, but it was not dug out. Fig. 36*b* was drawn by my son, Goodbird, under my direction, to show one of these kennels. The door, which was closed by leaning a short plank over it, had a kind of lintel or cross piece above it with small logs leaning against it. Kennels like this were used only for housing a bitch and her puppies. Old dogs had no need for it.

Some of the lodges in the village were roofed with loose earth dug out of pits nearby and not with sod. To make a dog kennel, some of the families who lived on the edge of the village sought one of these pits made by digging earth for the roof and leaned sticks against the wall of the pit, leaving a place for the door. The frame thus made was covered with grass and logs laid against it, as in the case of the kennel described above

¹See p. 244.

(Fig. 36*b*). Fig. 36 is a sketch by Goodbird, after my description, which conveys a fairly accurate idea of the frame of one of these kennels. It will be noticed that it has a lintel or cross piece like that described in Fig. 36*b*. Besides these kennels, I have also seen one or two made like Fig. 36*c*, but with earth thrown over the grass like the roof of an earth-lodge.¹



Fig. 36. *a*, Holding a Puppy over the Smoke before its First Feeding; *b*, A Dog Kennel; *c*, Sketch of the Frame of a Second Type of Kennel made by placing Sticks along the Walls of a Pit and leaving a Place for an Entrance.



Fig. 37. Wolf-chief's Model of a Frame of a Puppy Kennel. Drawn from a photograph by F. N. Wilson.

Wolf-chief gives the following supplementary information:—

When a litter of puppies was expected to be born, a kennel was prepared for them. A pit five or six feet in diameter and about a foot and a half or two feet deep was dug. Across the center was laid a log as for the ridge pole of a cabin roof and against this were laid split planks. These planks were covered with earth and grass like an earth-lodge, but with a space left for the door. The pit was dug deep enough so that small

¹For shelter on the hunt, see p. 244-245.

puppies could not climb out. In cold weather or when it rained, the door was covered with an old skin, which was weighted down with an old log or a heavy stick. I have made a model of the frame of such a kennel (Fig. 37).

THE VILLAGE DOGS.

We did not like to keep too many dogs around as they made everything dirty; and, as I have said, we gave away or killed the puppies we did not want.¹ In very old times I never knew a dog to be sold, though later, our customs changed, and dogs were purchased for the feast at war dances. Young puppies were usually killed by dashing them against the ground; sometimes this was done by boys, sometimes by women.

I never knew anyone to pen up a bitch to prevent breeding. As nearly as I can recollect, we expected our bitch to litter once a summer. I do not know how many times she could have littered during the year.

We had but one breed of dogs in the village in old times, but the colors of the dogs varied greatly.² We have none of the old pure breed left on the Reservation of which I know. White men's dogs have mixed with ours so that the old pure-blooded breed has been lost. Our old breed of dogs all had straight wide faces, heavy, but not short legs, and ears that stood erect like those of a coyote. The dogs were about the size of a wolf. Their hair was not very long and lay smooth and silky over the body. Our old Indian dogs had tails in general rather shorter and not so bushy as those I now see on the Reservation; and their tails curved upward somewhat at the end, not like a coyote's which lies straight.

Early in the night, about nine o'clock, before we were ready for bed, some dog was sure to begin barking or howling, "Wu-wu-wu!" and was soon joined by all the other dogs in the village, even the puppies.³ However, they did not bark very long. Again, the barking was almost certain

¹In 1914 the narrator said that some households had as many as twenty dogs, but that this was regarded as a very large number.

²One year later, Buffalo-bird-woman made the following statement:—

Some of our dogs were pure black, some white, some blue (iron-grey?), some red, and some spotted with every color. The majority of our dogs were spotted; there were only a few of one color. Some of our dogs were shaggy; some had short tails. A bitch might litter and have two puppies that would grow up with short tails about two and one-half inches long, while the rest of the litter might have bushy tails. Dogs with shaggy faces were apt to be mean and fight and be surly and cross.

All our dogs were about the same size. We had no small-sized dogs as we have now. All these dogs were, of course, of the old breed, which is now about extinct. There are a few of what we called "Four Eyes," the kind with spots over their eyes, but I do not know of any pure-blooded example of the old breed now left. There is one which Butterfly says is of the old "Four Eyes" variety at Mrs. Packs-wolf's cabin.

³In 1914 the narrator stated that: Dogs barked at all times, so I do not know whether our village was ever warned of the approach of enemies by the barking of dogs or not. But the dogs of our enemies were different. We knew they would bark at us if we came near their camp. For that reason a man starting on a war party should not eat the entrails taken from near a game animal's backbone; if he ate these, the enemy dogs would be sure to announce his approach by barking.

to be repeated about midnight and a third time just before daylight.¹ If any dog in the village set up an outcry during the day, the rest were sure to join.

When hunters returned with meat, someone on the lookout would spy them and cry out, "Hída-ě'! Hída-ě'! Hída-ě'!" At once, all the dogs knowing what the cry meant, would join in with "Wu-u-u-u!", for the dogs, too, rejoiced at the prospect of meat. Our dogs barked just like white men's dogs.

A stranger coming to an earth-lodge would be beset by the dogs belonging there and probably also by the dogs of the neighboring lodges. The dogs contented themselves with barking; they did not bite.²

A Sioux who came to our village to steal horses at night would very likely be detected by the dogs, I think, but in my lifetime I never knew of the village dogs announcing the discovery of enemies by barking. We always had men in the village on the lookout. If an enemy were discovered, as sometimes happened, from some roof in the village, the men would call out, "Ahahúts, they come against us!" Then all the dogs would join in the hubbub too. There were always men watching on the roofs. Early in the morning they ascended the roofs and looked around over the hills and over their horses to see if all were well.

We were always careful not to approach too closely to our neighbors' dogs when they were nursing. All-blossom was once bitten by a dog on the calf of her right leg. The dog came behind her, caught her, and held on, tearing the flesh of the leg open. That is the way our dogs bite.³ This happened at old Fort Berthold or Like-a-fish-hook-village. All-blossom is now about sixty. She was then a young woman and married. The dog had young and she went too close to her.

¹" . . . The mournful howl of a dog, mounted on the top of one of the lodges, breaks the almost deathlike stillness. The notes are instantly caught up by others, and directly every cur in the village is taking his part with commendable energy. Commencing soft and low, the noise grows louder and deeper until it finally dies away in a prolonged wail; modulated by distance, the sound is not unmusical.

This canine *matinée*, rouses up the sleepers; a stir is evident in the village, and soon the curling smoke from the lodges floats in the morning air. The squaws, old and young, followed by the usual retinue of dogs, hasten down to the river to fill their kettles while the warriors from the tops of the lodges anxiously scan the prairies to discover 'signs' of enemies. Everything appearing quiet, the horses are driven forth, each band guarded by a young brave, who takes them where the best pasture is to be found, and brings them back at sundown. As the horses in the course of the day often stray to a distance of five or six miles from the village, the guards act also as scouts, and ranging over the surrounding hills, serve not only to discover game (*i.e.*, buffalo), but also the approach of a war party. Timely alarm can thus be given, and the horses hurried in, while the warriors prepare for battle." Boller, *ibid.*, 51-52.

²Henry, who visited the Hidatsa in 1806, gives one a different impression:—

"We found it dangerous whilst in this village to stir out of the hut without a good stout cudgel to keep off the dogs; they were so numerous and savage as sometimes to defy the brandishing of our clubs, so that we were actually obliged to engage them. . . . Therefore, it is necessary for a person to be constantly upon his guard against the equally troublesome children and dogs. . . . At the Mandanes' we were not incommode in this manner; they have no dogs to annoy strangers, and the children are not so impertinent. They have not the same occasion for dogs as the Big Belles [Hidatsa], being a stationary people, whose longest excursions are only for a few days to hunt buffalo, for which purpose, and to convey home the meat, they always use horses."—Henry, A. and Thompson, D., *New Light on the Early History of the Great Northwest*. Edited by Elliott Coues (New York, 1897), vol. 1, 350-351.

³This may be a rather important observation. A coyote bites in a rapid succession of snapping bites. Buffalo-bird-woman's observation of the Indian dog tearing his teeth from the wound was brought out without any leading question.—G. L. W.

DOGS AS PROPERTY.

Wolf-chief adds:—

The dogs of our family belonged to all the women of the household. Ownership was not divided among them.

Dogs were bought and sold. If we had a dog that was poor in flesh, weak, or otherwise of little account, we might buy a well-favored puppy to take its place. We bought the puppy after the teeth appeared and he was old enough to care for himself, that is, when he was independent of his mother. A small gift was given in exchange for the puppy.

I never knew of a trained dog being sold. I cannot say that they were never sold, but I never knew of an instance in which it happened. For a well-favored puppy, a knife or a piece of tent skin, cut out ready to trim for a pair of moccasins, or some other small article, might be given. The woman receiving the gift might keep it or present it to her husband or brother. In my family, so far as I know, neither my wife nor my mother or sister ever bought or sold a dog. However, if someone had come to our lodge to buy a dog, and the women of the household were willing to sell one, I think all the women of our household would have agreed together about the sale. If just one of the women had sold the dog to someone who wanted it, the rest of the women would not have thought this to be right. They would have said, "You have not done right. That was a good dog; we needed him ourselves."

GATHERING WOOD.

One of the chief uses for dogs was to carry the wood gathered for fuel.¹ In our family, sometimes my sister, Cold-medicine, or my two mothers, or all four of us would gather wood. We always took the dogs and travois with us.

I was two years older than Cold-medicine, my sister. When she and I and our two mothers went out for wood, we usually started just after breakfast, say about seven thirty in the morning and returned about noon. From our summer village, we usually went about a mile and a half to the timber, but when we were in our winter village, the wood was nearer.

When we took the travois out of the lodge preparatory to going after wood, the dogs would bark, "Wu, wu, wu!" and wag their tails with joy. Between the three or four dogs our family usually kept, there was not much preference, since all of them were good working animals.

I never found a dog to be lazy when bringing in wood. All that was needed to make him go faster was to call him. We never whipped our dogs. It was never necessary to whip one, in my experience, to call him was enough. I would cry, "*Na'! na'!*" "Come! come!" and that was enough.

¹For a comparative statement of the use of dogs in the Plains see this series, vol. 5, 87, *et seq.*

We always kept wood on hand in the lodge and were careful not to let the pile become depleted. We went out to collect wood when it was convenient. If we had work in the lodge that kept us busy, we might not gather wood for five or six days; but if we had plenty of time, we might go out every day. This was especially true of the winter, when we burned a great deal of wood.¹

We set out, the four dogs following in single file. As they were hitched to the travois, they never tried to escape or run away; when we stopped they invariably lay down in the road.

When we reached the timber we cut the wood into lengths two feet two inches long and piled it in the road near the dogs. A load of wood for a dog consisted of a double armful or a little more. It was tied down by the two pack thongs. Besides the travois loads each woman carried a load on her back, the sticks being cut about two feet six inches, the proper length for our fireplace. The shorter sticks were made up into loads for the travois, because the roads were narrow and the dogs could not turn to avoid trees, as the women could. We collected any kind of dry wood; gathering it among the trees, on the sandbar, or in fact wherever we could find it. The foregoing description of the manner of gathering wood is true for any time of the year.

For the load a woman carried on her back she used a pack strap. It had two bands, one going across the shoulders and chest and the other across her forehead. We used the forehead band only to rest our shoulders now and then for a short time. In that case, we let the shoulder band drop and hang loose until we used it again.

I have said that when we came to the woods we piled up our wood, cut in lengths of about two feet two inches, in the path near the dogs, who meanwhile were lying down quietly awaiting their loads. First, we loaded the last dog to arrive, or the one nearest the village. As the dogs always traveled in single file and lay down in the path as soon as we stopped, the last in line lay in the path on the side nearest the village. One of us would approach him, grasp the back of the travois basket, and turn the dog around with his head toward the village. Then we loaded the travois. In like manner, each of the other dogs was turned with his head toward the village.

In spite of the fact that the sticks were about four inches shorter, the load which a dog dragged contained rather fewer sticks than that which the woman bore on her shoulders. The travois poles were cut

¹One year later the narrator stated:—

We did not whip a lazy dog as we do a horse that does not go, for we had no lazy dogs. Sometimes the women struck a dog that wanted to bite the men. No woman ever carried a dog whip of any kind.

flat at the lower end so as to run smoothly over the ground. In summer, a dog travois could not be loaded so heavily as in winter, when it was so much easier for the dog to drag it over the snow-covered ground. Of course, we gathered wood much less frequently in the summer than in the winter.

On the return from the woods we walked in single file, our loads on our backs, my two mothers leading, talking and laughing and telling funny stories. The dogs, also in single file, followed us. We never had to lead a dog by a thong. If for some reason a dog stopped, it was sufficient to call him by name, and the dog would obey and follow.

When we arrived at home we unloaded our packs and piled them with the loads from the travois, just back of the corral in the lodge, or where the fire screen met the *atúti*. In the winter village the firewood was piled on either side of the door in the forward half of the lodge, sticks being driven into the ground to hold the pile in place. The unloaded travois were sometimes laid against the fire screen, on one side of the door, or any other convenient place inside the lodge.

Wolf-chief adds the following on this subject:—

When the women went out for wood they sought almost any kind, cottonwood, elm, box alder. Diamond willows were an exception because they threw off a great many sparks.

Three women could load about twenty dogs by noon. The women went about one-quarter to one-half or even a mile from camp for wood. A good dog could bring in nearly one hundred pounds. One or more women with fifteen or twenty dogs could bring in enough wood to last the family a month,¹ I think, but a family with only four or five dogs would have to go out every week.

If, on the return home, a dog dragging a load of wood had his travois stuck between two trees or between a couple of stumps, the women would go back and free him and call him on again.²

The women also used to cut green cottonwoods six or seven inches in diameter, and cut off the branches into three-foot lengths for the horses to eat (p. 175). When the horses had eaten off the bark, the branches were used for fuel.

¹Wolf-chief probably means in summer when not a great deal of fuel was needed. His use of the term "month" is often for "a long time."—G. L. W.

²"The paths leading in all directions through the timber were beaten hard and smooth as a floor, by the constant tread of moccasined feet, and the passage of numerous dog-travées loaded with wood." (Boller, *ibid.*, 192.)

"Then harnessing up some eight or ten dogs to as many *travées*, they shouldered their axes and led the van, followed by the dogs trotting demurely along in single file. Before long, the woods resounded with the dull strokes of the axes, mingled constantly with the shrill voices of the women, scolding their dogs, who, very naturally, liked to vary the dull routine of every-day life by getting up a little rough-and-tumble fight among themselves. When a dog had his full load he was led to the main pathway, and after receiving a couple of practical reminders on his head from the axe-handle, to attend to his own business, started for his lodge, dragging his *travée* with great steadiness. Unless caught on some obstruction (in which case he patiently awaits his release), he quickly arrives at his destination, and finds some of the family ready to relieve him of his load and turn him loose to steal or fight among his brethren for his dinner. Several hours later, the squaws are seen coming back in parties, with a retinue of dogs, all loaded as heavily as possible." (Boller, *ibid.*, 193–194.)

Dogs were also used to bring in dry grass or hay for the horses. Hoes were taken along; the grass was cut, tied on a travois, and brought home. This was done in the winter village. It was very much easier for the travois to run on snow than on the bare ground and for this reason travois were used a great deal in the winter.

COLLECTING WOOD FROM THE RIVER.

As it was nearer to bring wood from the Missouri than to go to the timber for it, in the summer time we used to catch floating logs from a bull-boat with a noose. My sister or one of my mothers would go with me; usually I paddled and she carried the noose. If we saw a log floating down the river I paddled out to it and my sister threw the noose, caught the log, and we towed to shore. We piled the wood up on the shore. Sometimes we caught floating logs with a hook about fifteen feet long (Fig. 38). Men and women worked together pulling in floating wood with these hooks. My father liked to do this and sometimes stayed down by the river a whole day, pulling in firewood. In those days there was a great deal of wood, but near Like-a-fish-hook village it was rather scarce because we sold so much of it to steamboats. The wood collected from the river, we afterwards carried up the bank on our backs. We thus saved time. I carried short sticks up in a load with my packing strap; longer sticks I bore on my back, as shown in Fig. 39, or let one end drag on the ground.

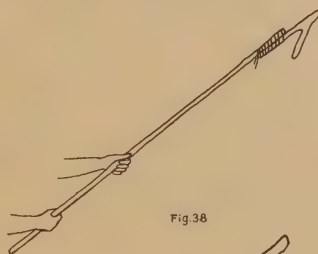


Fig. 38



Fig. 39

Fig. 38. Hook for hauling in Floating Logs in the Missouri River.

Fig. 39. Sketch showing how Long Sticks of Wood are carried by Women.

FETCHING FIREWOOD AND GAME BY BULL-BOAT.

A good place to gather firewood at Like-a-fish-hook village was in the timber about two miles from the village, on either side of the river. Sometimes two or three or four women carried bull-boats¹ with them. Sometimes we gathered wood on the side of the river on which the village stood; sometimes on the other side. A bull-boat was carried with the

¹For the bull-boat see pp. 248, 253-254 and 271.

mouth pointing backwards and with the bottom resting on the woman's neck, held in place by her pack strap.

We used to go out in the morning and return in the afternoon or evening. The boat was loaded in the water. It was filled to the top with sticks cut to fit the size of the boat. Then two sticks were thrust vertically in the back of the boat to extend beyond the load and more wood was stacked up against these (Fig. 40). A space was left in front



Fig. 40



Fig. 41



Fig. 42



Fig. 43

Fig. 40. A Bull-Boat loaded with Wood being paddled across the Missouri.

Fig. 41. Reviving an Unconscious Dog.

Fig. 42. A Bob-Tailed Dog.

Fig. 43. Goodbird's Sketch of a Dog (Took-away-his-shield).

for the woman who sat on the bottom of the boat with her feet to the right as there was not room enough to kneel.

If we went for a whole day we took along a lunch of biscuits, bacon, and coffee, though in olden times this would have been of buffalo fats with whole parched corn carried in a heart skin.

Once I went hunting with my husband. We took a dog and carried a boat on a travois.¹ We stayed all night in the woods and returned to the village in the evening of the next day. We came back in the bull-boat, carrying a doe and two fawns, and the dog, besides ourselves. We

¹For loading dogs with bull-boats, see pp. 231-232.

bound our travois to the boat in such a way that the skin saddle of the travois was out of the water, but the basket and lower ends of the poles dragged in the current.

We had killed the deer early in the morning. My husband had watched for deer the evening of the day we arrived and the next morning,—the morning in which the deer were killed.

It was difficult to carry a boat on one's back in an adverse wind. For this reason in windy weather we preferred to take a dog rather than to carry the boat, since a dog was not very high and the wind did not strike the boat with the same force as it did if the boat were on a woman's back.

It was not at all unusual for my husband when going upstream to hunt deer to take one of our dogs with a bull-boat on his travois. He would then float downstream in the boat with his game as I have described.

Once Son-of-a-star and Charging-enemy went up the river afoot from old Fort Berthold to the upper Knife River. They took a dog with them to carry their bull-boat. They hunted in the evening and morning and got a great deal of meat which they brought back in the boat. Their dog rode with them in the boat on the way back.

TRAINING A DOG.

It took about four days to train a dog to drag a travois. At first, when he was hitched to the travois and called by name, he struggled and whined with fear, but the woman coaxed and called to him, until he started toward her. The first three days the woman tied a thong around the dog's neck collar and led him. By the fourth day the dog had learned and would follow his owner. For the first trip very little wood was loaded on the travois, but the amount was increased from day to day until the dog could drag a full load. Some dogs were much stronger than others and could carry a much larger load. We always knew which dog to load the heaviest.

Wolf-chief gives the following supplementary data:—

Sometimes a hungry dog ate so fast that the food stuck in his throat and he fell dead. We Indians say he fell dead, but I think you would say that the dog lost consciousness or swooned. At such a time the woman would take up the dog and bring him down against the ground on his hips as in Fig. 41, alternating with thumps of her fists on his backbone just above the hips. In a moment the dog would come to life again with a yelp.

As a dog grew up he was broken to dragging a travois. When a travois and harness were put on him he whined and tried to squirm away from it. But the woman

coaxed and called him and with a string tied to his collar under his throat pulled him gently to the timber where she loaded the travois very lightly. The load was increased from day to day as the dog learned.

I never saw a dog bear any burden but a travois and its load, but I have heard that a war party once took a dog along that was broken to carry a burden on his back.¹ They put a saddle on the dog and bound moccasins and food on it. Perhaps the dog guarded the camp from the approach of a wolf or an enemy and was taken along for this purpose, but I do not know.

A dog sometimes fell sick and died. A woman would give him a few blows on his legs with a withe and he would come to life again. Dogs gave this power to some people in a vision. Dogs had sacred uses; they were used in certain ceremonies.

NAMES AND DESCRIPTIONS OF OUR DOGS.

Let us suppose a woman in the old times had a dog she wished to have named. In that case she would call upon some man who had won honor marks and he would give the dog some such name as Strikes-lodge, or the like. Sometimes, however, the women in the lodge named the dog after some peculiarity he had.²

When I was about eighteen years old we had five working dogs, the largest number we ever had in our family. They were as follows:—

Mida-padâpa-ě-ěc, or Feather-lance-carrier, a bitch. She was named by Big-cloud for an enemy whom he struck and who carried a feathered lance. She belonged to my grandmother, Otter. She was a bobtailed black dog with spots.

Ita-widâka-kaic or Took-away-his-shield, named by Big-cloud; a castrated male; belonged to Strikes-many-women; had black spots and a tail like a wolf. Goodbird has made a sketch of this dog. (Fig. 43). He has shown it to me and it looks very much as the dog looked. I have shown him where to draw the spots on his body.

¹This was probably an experience of Wolf-chief's when visiting the Crow.—G. L. W.

The Crow did not use the travois very much, while the tribes to the northwest of them seemed not to have used it at all. Instead, they used dogs as pack animals. See this series, vol. 21, 220.

Harmon, Daniel Williams, *A Journal of Voyages and Travels in the Interior of North America* (New York, 1903) writes as follows:—

"Those Indians, who live in a woody country, make no use of horses, but employ their large dogs, to assist in carrying their baggage from place to place. The load is placed near their shoulders, and some of these dogs, which are accustomed to it, will carry sixty or seventy pounds weight, the distance of twenty-five or thirty miles in a day.

The Assiniboin, Rapid Indians, Black feet and Mandans, together with all the other Indians who inhabit a plain country, always perform their journeys on horse back." (290.)

²No doubt the naming of dogs in this definite way was widespread, but escaped observation. See however, this series, vol. 21, 221.

Harmon in writing of Indians in general states that:—

"The Indians, throughout the whole country that I have visited, have no other animals domesticated, excepting the horse and the dog. Of the latter, they have several different species. Some of them are very large and strong, and are employed in carrying burdens; while others, which are small, assist their masters in the chase. All Indians are very fond of their hunting dogs. The people on the west side of the Rocky Mountain, appear to have the same affection for them, that they have for their children; and they will discourse with them, as if they were rational beings. They frequently call them their sons or daughters; and when describing an Indian, they will speak of him as father of a particular dog which belongs to him. When these dogs die, it is not unusual to see their masters or mistresses place them on a pile of wood, and burn them in the same manner as they do the dead bodies of their relations; and they appear to lament their deaths, by crying and howling, fully as much as if they were their kindred. Notwithstanding this affection, however, when they have nothing else with which to purchase articles which they want, they will sell their dogs." (289-290.)

Nuwatsa-kitēc, or One-killed; named by Big-cloud; a cast ated male; belonged to Strikes-many-women; white, with black spots; had a tail like a wolf.

Nahí-kutic, or First-killed; named by Big-cloud for an enemy that he helped kill; a castrated male; belonged to Red-blossom; White with black spots; tail like a wolf.

Aduxá-xitsidic, literally Spot-red; in English we would call the dog, Red-spot. He was a castrated male; belonged to Red-blossom. We women named this dog from his appearance. He had a tail like a wolf.

Of these five dogs, the first-named, Feather-lance-carrier, was the mother of the other four.

There were a good many bobtailed dogs in the village, at least enough of them to make them common, although they were not as numerous as the others.¹ There were perhaps about ten bobtailed dogs in the village. The bobtailed dog was born so and not made so artificially. A bobtailed dog or a dog with a tail like a wolf was equally good as a worker—it made no difference. My aunt had a bobtailed bitch which gave birth to a litter of puppies. I looked over the litter and found one that I liked very much and my aunt gave it to me. It was the first born of the whole litter, quite a large puppy, and was the only bobtailed puppy in the litter. I do not remember how many there were in the whole litter. The first-born puppies of a litter were always stronger and better dogs.

In Fig. 42 is a good likeness of this bobtailed puppy after it grew up. As you see, the tail is short. The dog was all black.

Wolf-chief gives the following supplementary data on the subject of names:—

Although the women of the household owned the dogs, they did not name them. A woman did not name even her own dog, but got her "brother" to do it.

I gave names to two female dogs; one I called Itsi-déca, meaning Foot-none or No-foot; the other dog I called Caki-déca, or No-hand. The reason for these names is as follows:—

Once, about in August, at Like-a-fish-hook village, two enemies attacked us. We gave chase and killed them both. I was the second to count coup on one of them and we found that he had a hand that was small and withered. Therefore, I called one dog, No-hand.

On another occasion, our people were picking juneberries in the woods when they noticed two men on a high hill who were looking toward the village. They told the villagers. At night we went out and found these two men attempting to steal a pony. We gave chase. One of them turned to fire at me, but his flint did not set fire to the powder. The man next to me shot at him and killed him. I reined in my pony

¹No other mention of bobtailed dogs is known to the Editor; hence, it seems likely that this was a mixed-breed from trader stock. Such could well have been introduced long before the birth of the informant.

and scalped the enemy. In the morning we found that this enemy had a full-sized moccasin on his right foot, but that he had lost part of the foot itself. Therefore I named one dog, No-foot.

The men who killed these two enemies cut off the right leg of the man who had an imperfect foot and took it to the village. They removed the moccasin and showed the foot to the people. The villagers could not tell whether it was a man's foot or not, it was of such a strange shape. It looked like a hammer. I could have named the dog, Took-a-scalp, from the fact that I scalped the enemy, but we usually named the dog from something that we observed about the dead enemy, or from something that struck us as humorous. It was because we laughed at this strange foot that I called the dog, No-foot.

My father, Small-ankle, once called a dog, *Īta-măétsi'-da-ia-da-kútsic*, his-knife-with-his-own-hair-take. A free translation of this would be, "took his hair with his own knife," that is, with the dead man's knife. The dog belonged to us and I remember the circumstances very well. It was my father who scalped an enemy with his own knife.

Once when my father was a member of a war party they came near an enemy village and watched in the hills for someone to stray from the village. A man came out of the village. My father and his friends shot the man's horse with a gun; he tried to escape, but they overtook and killed him. They found the slain man had his face painted black, which was a sign that the villagers were rejoicing over a dead enemy. For that reason my father named one of our dogs, *Ita-cipshe-nakapēc*, "his-face-black-leader's-honor-mark." The word *nakapēc*, means the honor mark that belongs to a leader who has commanded a war party that killed an enemy. Symbolic of this honor mark some human hair is fastened on the shirt of the leader.

Another one of our dogs was named *Matax'-apihec*, from *matáxi*, turtle, and *apé'hes*, necklace. Once there was a great battle at the mouth of the Knife River, with thousands on each side. One man from the other side rode forward against the Hidatsa. Small-ankle leaped from his horse and awaited him. The Sioux, who was riding, shot at Small-ankle as he came forward, but since Small-ankle did not retreat the Sioux turned to go back to his own men. Small-ankle fired and the Sioux fell. The Hidatsa ran forward and cut up the body, for it was our custom at that time to scalp an enemy, cut off his hands and feet, and mash in his head bones. The Hidatsa found that the dead enemy had a necklace made of a strip of red cloth with a green turtle shell fastened to it. The shell was just a turtle back scraped clean of the flesh. The red cloth was drawn through a hole in the shell. Very likely the turtle shell was a mystery object.

Other names¹ of dogs are as follows: First-strike; Last-strike; Caught-with-the-hand; Crying-one; Killed-many-enemies; Stabbed; Shot-with-an-arrow; Killed-by-a-club; Ran-over-him; Brought-an-enemy's-horse; Took-an-enemy's-horse; Brave-man; Chased-an-enemy; One-enemy-struck; One-enemy-killed; Cut-loose (i.e., cut a picketed horse loose); First-to-see-an-enemy; Captured-a-horse-in-battle; Dismounted-in-big-battle; Knife-carrier; and He-wept-being-caught-by-the-hair.

We kept one dog in our lodge for breeding: He was quite large, red, and his name was Akikahic, or Took-away-from-him. Once in battle, ene-

¹For other dog names, see pp. 231-232.

mies captured Big-cloud's horse. He gave chase and recaptured it. For this reason he named the dog, Took-away-from-him, in memory of the horse he had recaptured.

Although we had only four working dogs in our family, we often had more in the lodge, for there might be one or two dogs too old to



Fig. 44

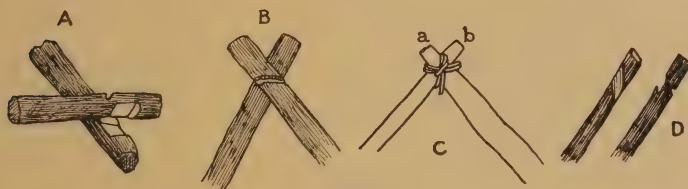


Fig. 45

Fig. 44. The Dogs run off to Fight while Goodbird rides on the Travois.

Fig. 45. Travois Poles, showing Manner of Attaching and Tying.

work, or young ones we were raising that were not yet old enough to be broken to dragging a travois. Four dogs were quite enough for our work; but we were always careful to have young dogs growing up to take the place of the old ones whenever they were needed. One of our dogs lived

to be about twelve years old. When a dog grew too old to work we kept him in the lodge without working. When he died, his body was thrown into the river or far away in the woods. We never shot an old worn-out dog, that I remember.

CHILDREN RIDE ON A DOG TRAVOIS.

Small boys sometimes jumped on a dog travois to ride just for the fun of it. Once I asked my husband to go for wood with me to the timber east of the village. I had three dogs and travois. My son, Goodbird, who was then four or five years old, wanted to go along. My husband and I said, "No, you cannot go." Goodbird wept and wept, so at last we took him with us. As we went along, my little son jumped on and off the travois, walking and riding, and playing with the dogs. The dogs got into a fight and ran off with my little son. He was much frightened and we laugh about it to this day.

Goodbird:—

I remember that. There was a road down to the timber and another road that led to the chokecherry hills crossed it. We were going along the latter, my father and mother walking ahead, when a woman came down the first road on her way to the village. She had two or three dogs with travois. Fig. 44 shows the relative positions of our two parties. Our dogs saw the others and started across the triangle that lay between the two roads. The other dogs also turned toward ours barking. I yelled, "*Ai, ai, ai!*" I was dreadfully frightened; the dogs were leaping along at such a rate that I was afraid to jump off. The other woman ran between the dogs with her arms up in the air. "*Na! na!*" she cried. "Go away! Go away!" That stopped our dogs. I jumped off the travois and ran to my mother. I did not want to ride on that travois again!

We never put small children tied in their cradle bundles on the travois because the dogs lie down often, indeed, every time the march stops. It was common, however, to ride a few miles on a horse travois to rest oneself. Sometimes a boy or girl or perhaps both were permitted to ride on top of the load on a horse travois. At times a bull-boat, mouth up, was bound to a horse travois. We often put a boy or girl old enough to run about, but not old enough to be very strong, in the bull-boat, but a baby was always carried and cared for by the mother. We would not have risked putting a baby in a bull-boat unless the mother was with it.

MAKING A DOG TRAVOIS.¹

When I needed a new dog travois frame I made it of two long cottonwood poles or of poplar (birch?). This last has a white bark with leaves

¹See pp. 281-283.

similar to, but smaller than, cottonwood. It is very light and for that reason valuable for a travois.

We always kept new travois poles on hand. My father cut the green poles in the timber, peeled off the bark, and laid them on the corn-drying

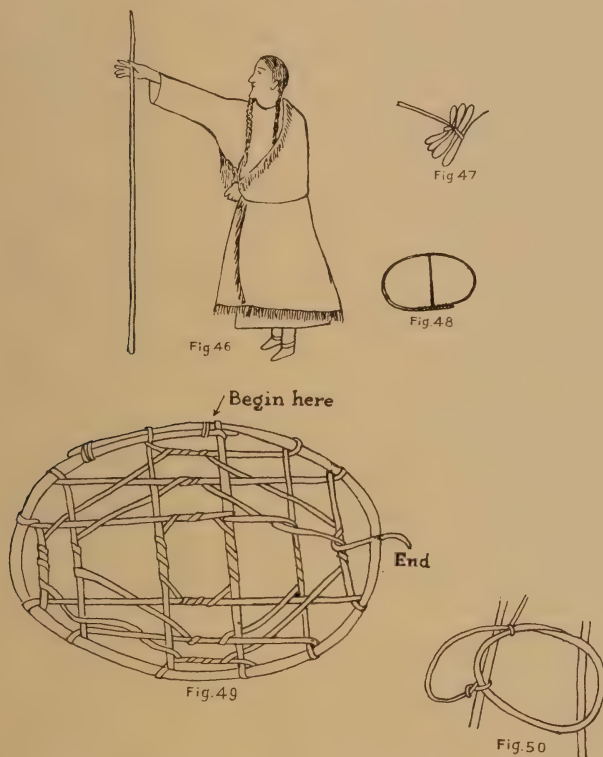


Fig. 46. Measuring the Pole which is to form the Rim of the Travois Basket.

Fig. 47. Looped Bundle of Rawhide Thong prepared for Netting Travois Basket.

Fig. 48. The Rim of the Travois Basket held in Shape, for drying, by a Rawhide

Thong.

Fig. 49. The Completed Travois Basket.

Fig. 50. The Tie for securing the Load to the Travois Basket.

stage to dry. They were always dried thoroughly before binding them together to make a frame. The poles of a travois frame had to be replaced about every two years, but the basket and its woven cushion were merely transferred to the new travois.

The travois frame poles were usually about one and one-quarter inches in diameter at the upper ends and increased to about one and three-

quarter inches at the lower ends which were cut flat so they could rest on the ground like runners. The best travois poles were a little curved and were so bound together that the curve arched upward so that the basket was carried on the top of the arch. The weight of the loads tended to bear the poles down so that if a travois were made of new, straight poles, it was not long before the frame sagged out of shape. The travois frames built to arch upward a little, were only straightened by the basket weight and therefore lasted much longer. For this reason, when we went out to cut travois poles we were careful to search for young trees that were slightly bent.

To make a new travois frame, I notched two poles at the upper or smaller ends, tying them firmly with *itsúta*¹ tendon of the buffalo. There were two of these tendons, one lying on either side of the neck vertebrae. One of these was cut into strips about three-eighths of an inch wide. The green tendon was drawn around the poles three times and tied. When it dried it held the poles firmly together. A green rawhide did not make a very good tie as it was apt to loosen as it dried. As will be seen in Fig. 45, a transverse notch was cut across the upper and lower pole to receive the tendon. Fig. 45A shows the two poles ready to be joined. In Fig. 45B the poles are joined with the transverse notch on the upper pole, while in Fig. 45C the two poles are bound together by the *itsúta* tendon. In Fig. 45D the ends of the two poles are viewed from different sides. The stumps of the joint in Fig. 45C (*a* and *b*) were very short, only a couple of inches long.

I cut the green ash pole for the basket hoop in the timber myself. I cut a pole tall enough to reach to my shoulder when standing (Fig. 46) and about five-eighths of an inch in diameter. In the figure drawn by Goodbird (Fig. 46) the section of pole above my hand is to be cut off. I am measuring on the pole with my palm, the place where it is to be cut.

After cutting the pole, I tested it, bending it under my foot to see if it was tough and elastic. At home I heated it over a fire, passing it back and forth over the coals to keep it from burning. When it was well heated, I bent it under my feet, moving it around and treading on it to make it pliable. I shaved down the heavier end for the joint, bent the pole to form an oval, and tied it with thong. As the bark formed a protection against breaking while heating and making the pole pliable, it was not peeled off until the hoop was bent into shape. Then a rawhide thong was tied across the center of the hoop to make it hold its shape

¹The tendon that holds up the head and neck of the buffalo.

while it dried (Fig. 48). It was now left on the drying pole in the earth-lodge, near or over the fire, for three or four days. I always hung it just a little way from the chain on which the pot was hung.

Then I soaked a dry rawhide with the hair scraped off, either in a pail of water or in the broth made by boiling dried meat. The broth had to be tepid; if too warm, the hide would spoil. We saved this meat broth to drink. When the hide was well soaked and softened, I took it to my father, Small-ankle, to be cut. To do this, he cut the corners round, and then cut a spiral toward the center, resulting in a long thong about three-eighths of an inch wide, which he colored red by drawing the thong through the palm of his hand in which he held some moistened red paint, such as we obtained in the hills. It was a rule that all our travois baskets be red, though I do not know why. After cutting the thong, Small-ankle tied one end to the basket hoop and looped the rest into a bundle tied with a strip of hide (Fig. 47). As he wove the thong back and forth on the frame (Fig. 49), the looped bundle (Fig. 47) unraveled loop by loop without tangling or knotting.

Fig. 49 is drawn from a small model I have made, but the principle of the weave and the pattern hold for the full-sized travois basket. In the small model sections between the thong are one-half an inch in diameter; in the full-sized model they average roughly one and one half inches. This type of weave is used both for the dog travois and the hoop game basket; that for the horse travois basket is different.

When Small-ankle finished weaving the basket, I hung it to one of the posts of the corn-drying scaffold by a string. The wet thongs dried in about a day. Then I bound the basket to the travois poles with thongs of tent skin at the four places where the basket crossed the poles. It will be noted (Fig. 49) that the joint of the basket hoop always lies uppermost. This was always true of the dog travois basket. On the horse travois, however, the basket might have a joint on either side, either on the side toward the top or the bottom of the frame. On neither a dog nor a horse travois was the joint placed on the sides of the basket where it was bound to the travois poles.

A dog travois was in almost daily use, while the horse travois was used less frequently. We regarded the horse travois as having been recently introduced into our tribe, but we had the dog travois from very old times.

After the travois frame was completed and the basket bound on, I put on the buffalo skin saddle, or cushion, to protect the dog's back and shoulders from the hard poles. This was made of buffalo skin, hair side

out, and was sewed on so that the seam was uppermost and the smooth fur rested on the dog's shoulders. Then I sewed on the two oiled rawhide loops, one longitudinally and the other transversely with the poles. Then I fastened on two rawhide packing thongs. The breast band and neck collar were also of rawhide.

A load should be bound to the lower edge of the basket with the two packing thongs mentioned above. Each thong should be tied on its proper side, to the lower edge of the basket at the same place that the basket is tied to its pole. The packing thongs should be made to pass around both the pole and the basket hoop (Fig. 50).

Sometimes women made their own travois baskets. When they did, they painted the baskets red. We also painted the hoop for the hoop game red. We used red a great deal for decoration. I never saw new, unpainted, dog travois baskets; they were always painted red, as were also the game hoops. Horse travois were unpainted.

I never knew of dogs being used to drag sledges or anything like a sledge, such as a boy's buffalo rib slider or a buffalo skin laid down on the snow and hitched to a dog. As far as I know, we had no such customs.

We ceased to use dog travois about thirty-four years ago when we obtained wagons from the Government (about 1879). At about the same time horse travois passed out of use. Fifteen wagons were issued the first summer and fifteen the next summer. Pretty soon everyone in the village used them. We often borrowed wagons, one from another.

Wolf-chief adds:—

Usually, the travois, when not in use, were leaned against the entrance way to the lodge or against its side. They were stacked one against the other like folding chairs, but if there were too many for one pile, the stacks were separated.

In order to carry the loads travois had baskets with skin lacings, usually painted red, bound to the poles. These baskets were about 36 inches long and 25 inches wide. These baskets were woven only by skilled persons who were paid for their labor. Small-ankle was very skilful in weaving these baskets. The men also wove snowshoes and game hoops. The red-painted thongs for the basket lacings signified that the weaver had obtained an honor mark for striking an enemy. For example, Small-ankle, who had been a successful leader of war parties, had the privilege of painting his face red as a symbol of joy. Thus, if a woman whose husband had never been to war should come to Small-ankle to have her travois basket woven he had the privilege of painting it red because of his war record. The red paint on the basket always referred to the deeds of the weaver and not the owner. There were, however, unpainted travois baskets in the village because the maker had no honor marks. My father, Small-ankle, told me this and taught me how to make a travois, but I am not very good at it.

My father did not think it a very important matter to make a travois basket as it was not sacred. Besides, he had an opportunity to paint it red and he knew the woman would be sure to show the travois to others in the village so that he would be

raised high in the esteem of the people. Because of this it was not thought necessary to make any payment for the making of a travois basket, though a small gift was very often offered. However, when the duty to be performed was a sacred matter, a good price was offered, as for instance, when my sister, Buffalo-bird-woman, was called in to put up the four central posts of an earth-lodge or to cut the skins for a tent cover, and prayed while doing so.

The lacings of a travois basket were made of the skin of a buffalo bull, taken from the belly and legs, where the skin is always thin. The skin of the back and neck of a buffalo is too thick for this purpose. Sometimes green hide was used; sometimes a dry rawhide was softened by soaking, cut into strips, and used. A dressed hide would sag soft if it became wet. The object of the weave was to have a good spring to the basket.

The woman, or her husband if she had one, who desired the travois, furnished all the materials. The two poles were of cottonwood and the basket hoop of ash. If the woman did not know how to make the hoop, she brought it to the maker. If she did know how, she bent and braced the hoop into shape while her husband held it. As a rule, the woman prepared the hoop and left the weaving to the maker. She and her husband prepared the hide for the lacings, but left their cutting to the weaver. Sometimes, instead of taking the material to the weaver's lodge, she might call him to her lodge.

The travois saddle was made of skin from the shoulders and neck of the buffalo where the hair is thickest. It was not stuffed with hair inside. The joint of the poles was firmly bound with buffalo neck sinews that are strong and heavy and the skin saddle was then sewed on with buckskin thongs. The saddle was made by the owner. The harness was made and put on by the woman.

A dog travois was about eight feet long. The flat part of the travois poles that dragged on the ground was about eighteen inches long.

DOG TRAVOIS SHELTER TENT.

When my son, Goodbird, was about seven years old, word came to the village that chicken-pox was coming. The Agency people said, "Chicken-pox is going to come here. We think it best for the people to go away and not come near the Missouri River for a while. The Arikara who live farther down the river have the chicken-pox and we think that it will be brought up the river to this village." All our people were made quite uneasy by the news. We knew that chicken-pox was not as dangerous as smallpox, but either disease was bad enough.

It was juneberry time and our whole village packed up and went north and camped. As I have said, the Agency people warned us to keep away from the Missouri River for fear that chicken-pox might be brought to us by travelers who came up the river. As out in our country timber grows only along the rivers, our camp, pitched away from the Missouri, was at a place where we found not very much timber, and what we did find was small size and scant. Because of this we could

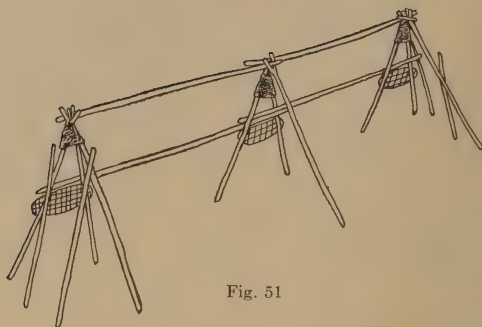


Fig. 51

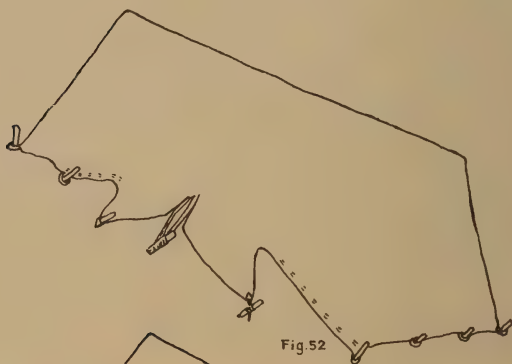


Fig. 52

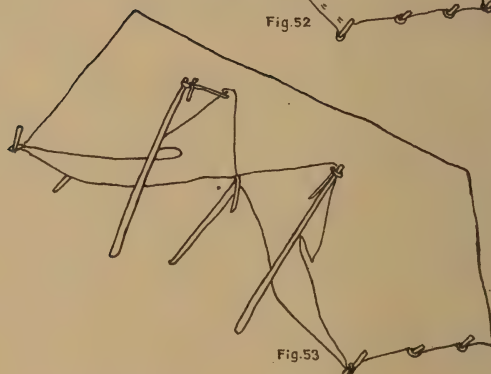


Fig. 53

Fig. 51. Frame for Shelter made by setting up Three Dog Travois and adding Several Extra Poles.

Fig. 52. The Shelter with Flaps closed for the Night.

Fig. 53. The Shelter with Flaps raised to allow Circulation of Air.

not conveniently find tent poles. We were able to find a few forked sticks here and there and some small wood which we cut. Our camping family was rather large; there were eleven of us in our tent.

We were able, however, to make a tent, or perhaps I should say, shelter, with our dog travois. Three travois were stood up about five feet apart in a line and each propped at the top against a forked stick, bound securely to it. Thus each travois and its forked stick support made a tripod. A railing ran along the tops of the three tripods and a

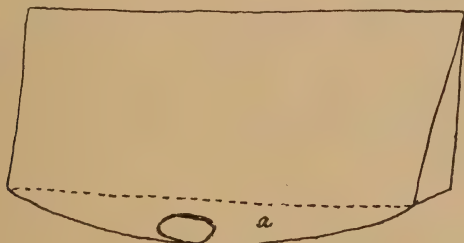


Fig. 54

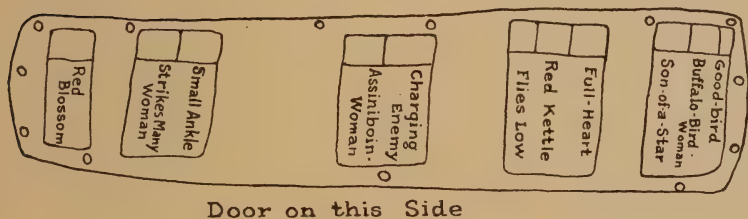


Fig. 55

Fig. 54. Rear of Shelter Tent with Excess of Cover weighted down with a Stone.

Fig. 55. Interior Sleeping Arrangements in Travois Shelter Tent.

second railing ran along the sides just above the baskets. All the baskets of the travois lay toward the weather side of the frame. At each end of this frame two extra poles were bound, one to the travois, the other to the forked stick support. These extra poles were to give the tent a rounded form at the top.

Over the frame thus made (Fig. 51) we stretched a tent skin. In Fig. 52 is shown the tent as it looked at night when closed. In the daytime an entrance was made by raising the two smoke flaps and binding them with thongs to the tops of two sticks to prop them open (Fig. 53). These smoke flaps were propped open all day to give air. The rear of the tent is shown in Fig. 54. As the bottom of the tent was round, this left a rather

large margin which lay on the ground Fig. (54a) weighted down with a small log or stone. The floor of the tent was made of tent skins.

There were five beds. Beginning at the left (reckoning Indian fashion) was the bed of my husband, myself, and Goodbird. Although seven years of age, Goodbird still fed at my breast. The second bed toward the right was that of Full-house, Red-kettle, and Flies-low. I have forgotten in what order they slept. As will be noted in the diagram (Fig. 55) Goodbird slept nearest the end of the tent in our bed. My place was in the middle and Son-of-a-star slept on the right. The third bed, passing toward the right, was that of Charging-enemy and his wife, Assiniboin-woman. It will be noticed that Charging-enemy slept on the left and his wife on the right. The next bed was that of Small-ankle and Strikes-many-women. Red-blossom was last. In Fig. 55 are shown the relative positions of the beds and the position of each sleeper, as I remember them.

We had driven from Like-a-fish-hook village in a wagon and there were a number of other wagons in camp. Quite a number of the families had erected tipis. While we were camped here, a terrific storm of rain and wind came up, so severe that many tipis were blown down and wagons were overturned; but our shelter withstood the storm safely. During the worst of the wind, we held the frame firmly, the better to withstand the wind. Small-ankle and his two wives grasped the first travois on the right; Charging-enemy and his wife held the middle travois; and my husband and myself held the travois on the extreme left of the frame. In this way we prevented the tent from being blown over.

Goodbird interrupting:—

I remember that tent very well. I was seven years old at the time and I remember it because of its unusual form. Figs. 52 and 53 are correct, because I remember how that tent was put up. It was an unusual form, but it made a very good shelter for us in that camp.

My husband, Son-of-a-star, once told me of another way to make a tent out of dog travois. Three travois were joined together at their tops and a piece of tent skin drawn around the frame thus made. Two persons could be accommodated very well in such a shelter. I myself never saw such a tent, but my husband had. Fig. 57 represents the frame of such a shelter drawn by Goodbird after my husband's description.

ADDITIONAL INFORMATION CONCERNING DOGS.

(Narrative of Wolf-chief.)

DRAGGING TENT POLES.

Before a dog was made to drag tent poles, a light load of something that was not fragile, like a robe or a few blankets, was bound down over the travois and then the travois was harnessed to the dog. As dragging tent poles was heavy work a good strong dog was chosen, perhaps one called Short-tail or Four-eyes from his looks. The poles, ten, twelve, or thirteen in number, were strung together by a thong through holes pierced at their smaller ends. Then the tent poles were fastened at, or near, the fork, the smaller ends of the tent poles projecting about two feet beyond the dog's head. The tent poles were then spread out over the travois basket and bound down. A big tent might have poles six paces long. Such poles, when bound to the dog travois, might extend three feet beyond the dog's head (Fig. 56).¹

CARRYING WATER FOR DOGS.

There was a warm weather custom of carrying water for a dog in a buffalo paunch. A piece of a skin tent, two and one-half to three feet in diameter, was laid flat on the travois basket, and some grass spread over it. A buffalo paunch was filled with water, the mouth skewered with a stick, and tied with a buckskin thong (Fig. 58). Then the water-filled paunch was placed on the grass-covered tent skin with the mouth of the paunch upward and the whole was tied with rawhide thongs.

When the dog became thirsty on the road, the woman untied the paunch and held the mouth open while the dog lapped up the water. If there was more than one dog, they were allowed to lap one after another. If there was any water left when they had all quenched their thirst, the paunch was tied up again. Otherwise, the paunch was kept and filled up again at the next opportunity.

Dogs dragging heavy loads could not go very far without water. When five or six dogs were taken out, perhaps two of them might carry buffalo paunches filled with water.

In winter, if water was ever needed by a party on the road, snow was melted with hot stones. A hole was dug in the ground and a green hide or a buffalo paunch spread in it; snow was shoveled into the hide and hot stones placed on it. I do not mean that in the winter a party

¹This account by Wolf-chief and the diagram, needs some corroboration. Throughout his entire account, Wolf-chief shows himself familiar chiefly with generalities, while Buffalo-bird-woman gives everything in careful detail. I have elsewhere made a few observations concerning the two accounts.—G. L. W.

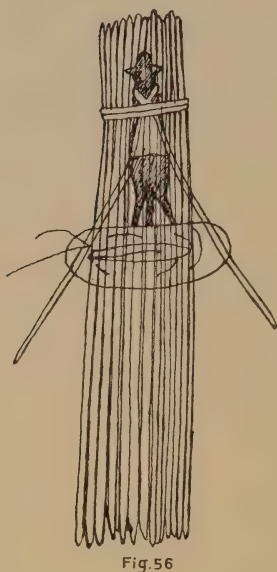


Fig. 56

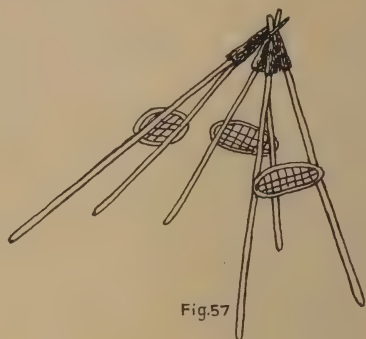


Fig. 57



Fig. 58

Fig. 56. Diagrammatic Sketch showing Dog dragging Tent Poles lashed to the Fork of the Travois.

Fig. 57. Three Travois set up to form a Tent Frame.

Fig. 58. A Buffalo Paunch filled with Water, tied with a Buckskin Thong, and skewered with a Stick.

would stop and melt snow so their dogs could have water, but merely that if water were needed while on the road it was the custom to melt snow in this way.

BRINGING IN MEAT BY TRAVOIS.

Because dogs required a good deal of water in the summer they were not used so frequently for bringing in meat in the summer months as they were during the winter, when they could quench their thirst with snow. During the summer they suffered a good deal if they had to drag loads a long distance without water. In going uphill in winter a dog frequently lay down on his belly and bit off the snow which balled between his toes. At such a time the owner would wait and when she thought the dog had had sufficient time to rest, she called and the dog would follow. The dogs followed the owner in single file. If one got tired and stopped, all the others stopped too. After a wait, the owner

would call out and the dogs would resume the march. When the owner stopped all the dogs lay down to rest, not upon their sides, but upon their bellies.

When a man killed buffalo in the hills in the winter he usually brought home some of the meat when he returned. The next day, he and his wife went out with the dogs and travois and brought in the rest of the meat and the bones. The killing may have been as many as seven miles away, but such a distance was no hardship to the dogs as the travois dragged easily on the crust of snow always found on our prairies.

When the dogs came to the butchering place they did not struggle to get at the meat. "Lie down!" the owner would say, and the dogs obeyed. They were not fed much at the butchering place, for if a dog was allowed to gorge himself he would vomit it up on the way home. If they were hungry, they might be given a very little to eat.

On the way home, the dogs might be fed two or three times. They were not given very much, only a little piece to each dog, for fear that the dog would vomit and get heavy on his feet and break through the snow crust. When they arrived home, the dogs were given all they wanted to eat.

When the train came to the village, the other dogs of the village did not trouble them. The travois were unloaded and the dogs fed. They were given either cooked or raw meat; if the latter, some of the tough parts that were not much desired. The dogs ate eagerly, for they were big eaters. There was no danger of their getting sick, now that the haul was over. All the family, men and women alike, came out of the lodge door, unloaded the dogs and took the meat inside.

The meat was unloaded just outside the earth-lodge door. Then the travois was taken off each dog, usually by the owner or someone else in the family. The women attended to this part of the work, but the men helped carry in the meat.

In loading the travois, the meat was laid, raw and uncovered, on the basket and merely bound down with rawhide rope. No skin was laid over it to protect it. The dogs were too well-trained to try to eat meat from the travois in front. Perhaps a newly broken dog would, but no other.

A load for one dog was one-quarter of a buffalo, that is, an Indian quarter, cut off from the backbone. The hide which weighed about eighty pounds might make a load for a dog.

When we Indians butchered, quite a strip of the flesh was taken off the outside of the ham because it was tough. The remaining parts,

together with the bones, weighed perhaps one hundred pounds. Such a piece made a load for a dog. A rawhide rope went back and forth over the travois basket to hold on the load.

I have heard some people say that they have known of one dog that brought in half of a buffalo; but this dog took sick and died afterward from the effect of the haul. I doubt this story because half of a buffalo makes a very heavy load and I do not think that any dog would be strong enough to drag it.

It took about three or four hours for dogs to bring home loads from a butchering place seven miles away. The pace was not fast. On the way to the butchering place the men and women hurried, running and walking alternately, but on the return the pace was slower. When returning from the butchering place the men and women did not pack meat on their own backs, but they might take horses with them. A whole buffalo carcass could be loaded on a horse and the owner could still ride.

The travois baskets were not cleaned or washed after they were brought in. They were just allowed to dry. Our dogs never chewed the travois baskets. If strange dogs came near, the dogs of the household would chase them away.

THE LEADER.

We had a good dog in our family named Face-painted-black. I do not remember things very plainly as I was a boy then, but I am pretty sure that Face-painted-black was the leader of the dogs of our household. I recollect that when the women of the lodge started out they would often call him first and then one or two others and that they did not call the whole pack.

In every dog pack there was one strong, stout-limbed, reliable dog that was called first, as the leader. At least, I think this is the case from recollections which I have of things in my own family. I cannot affirm positively that this was so in every household, but I am pretty sure that in our dog pack we always recognized one particular dog as the leader.

SIGNALS FOR CALLING DOGS.

Mr. Wilson has shown me how he used to call birds when he was a boy, by wetting the back of his hand and sucking it with his lips, making a kind of whistling or whinnying noise. We used to call a small puppy in somewhat the same way. The lips were pressed together not so much into a round shape as into a flat or oval shape and the air sucked into the mouth made much the same kind of whinnying or whistling noise. This

noise was made in rapid succession two or three times and followed by a succession of clucking sounds made by doubling the tongue downward in the mouth and drawing it rapidly back and forth against the lower lip, with the mouth partly open, making what you call a kind of half cluck.

SELECTING DOGS.

Both male and female dogs were killed if they were surly in disposition or if they were "digging-lodge" dogs. A "digger" was killed just as soon as it was discovered he was developing the habit, for we knew that if a dog dug outside at the foot of the lodge roof, some member of the household was going to die (p. 198). We also killed an "eater" that is, a dog that ate meat from the drying stages, because we feared that such a dog might "eat up" families. I mean that we feared to let such a dog live lest it be a sign that the family would be "eaten up" or destroyed by enemies.

At night, if a dog howled alone, and not at the regular times with the others, we thought it a sign that he was sorry for something that was about to happen in the household.

Of a dog with an out-bulging forehead that was surly and mean and bit people, it was said, "That dog bit someone in that family. It is a sign that someone in the family is going to die."

The dogs of our enemies, the Sioux, were wild and surly. If strangers came near them they barked very much. We feared these wild dogs and if we wanted to approach to attack a Sioux camp, we usually planned to do so before daylight, when everyone, even the dogs, slept. Our dogs were better trained and were not so wild. Those of the Sioux were, I think, very much like the Sioux themselves. They were always traveling about and because of this had slim legs; but it was only in the slinness of their legs that they differed in appearance from our dogs; otherwise, they were very much alike.

A dog two or three years old had acquired his proper strength and was old enough for work. Those that developed surly dispositions were shot. Often a bitch would be very surly and cross before her puppies were born, then the people would say, "That bitch will give birth to many male dogs." We also thought if a mare was savage before the birth of the colt that it would be a male.

To make a dog gentle the woman owner would take up the puppy, spit in its face, and gently rub the saliva over its head and say, "I want to bring this dog up to be gentle."

At night, when the dogs barked and whined the people would say, "Ghosts are around. The dogs are talking with them. They can see

ghosts with their eyes." Whenever they made a whining noise we said that they were talking with ghosts.¹

Dogs in our tribe were never taught to help in hunting² nor were they ever taught to help in herding or driving in horses.

We did not keep our dog skins nor use them for tanning. If a dog died we just threw the body away.

During sacred ceremonies dogs were kept outside of the lodge as it was thought unlucky to allow them to be present. If one came in the people would say, "Drive that dog out!" and would throw sticks at it and drive it out.

No dog was ever allowed near a fishing trap lest it eat the dead animal used for bait. I do not know of any special rule forbidding dogs to come near the fishing trap, but we just thought that no one should take a dog to a fishing trap. A dead dog was never used to bait a fishing trap.

In 1914 Buffalo-bird-woman gave the following:—

Ordinarily, dogs were not eaten, partly because the dog was a sacred animal, and again because the flesh was not good; for dogs fed on carrion and human ordure. Our people did not eat dogs until about forty years ago, when we learned the custom from other tribes, I think the Santee Sioux, who gave us the grass dance. It was the rule that we should eat dogs when we danced the grass dance.³

We also knew that all male animals, like the deer and buffalo, were not very good to eat in the breeding season. The flesh then tasted different from what it does at other seasons of the year.⁴

¹Lewis, writing in the Mandan country, states:—

... "near the (burial) scaffold I saw the carcase of a large dog not yet decayed, which I supposed had been killed at the time the human body was left on the scaffold; this was no doubt the reward, which the poor doog had met with for performing the (blank space in Ms.,) friendly office to his mistres of transporting her corps to the place of deposit. it is customary with the Assiniboin, Mandans, Minetares etc., who scaffold their dead, to sacrifice the favorite horses and dogs, of their diseased relations, with a view of their being servicable to them in the land of sperits." (Lewis and Clark, *ibid.*, vol. 1, 323.)

²In his account of Mandan hunting methods, Maximilian remarks:—"Dogs are not employed in hunting by the Mandans and Manitaris." (vol. 2, 346.)

Yet of the Arikara we read:—

"It may be here remarked, that horses and dogs are the only animals which the Indians domesticate: of the latter they have two varieties, one of these they employ in hunting; the other appears to be of a stupid and lazy nature, always remaining about the village, and employed as mentioned above." (Bradbury, *ibid.*, 119.)

³See this series, vol. 5, 44.

⁴"The Indians frequently eat the flesh of the dog; . . . These dogs are small; and in shape, very much resemble the wolf. The large dogs are of a different breed, and their flesh always has a rank taste; but this is never the case with the small kind." (Harmon, *ibid.*, 281.)

A HUNT MADE AFOOT WITH DOGS.

The place of the dog in Hidatsa culture may be concretely presented by adding a specific narrative of a hunting trip on which dogs alone were used. Though this hunt occurred about 1870, it can, with due allowance, be taken as typical of prehistoric days, before the horse and the gun were known. The narrative that follows is by Buffalo-bird-woman and was related in August, 1913.

The Hunting Party. After I married Son-of-a-star, but before Good-bird was born (I was about twenty-nine or thirty years old) I went on a hunt up the Missouri River. We started in the spring, about the last of March, or the first of April. There were six men and their wives in the party: Crow-flies-high and Oke-wiác, or, Head-plume-woman, his wife; Bad-brave and Sioux-woman, his wife; High-back-bone and Bloss-

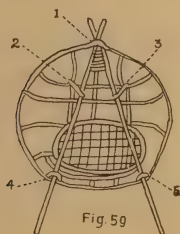


Fig. 59

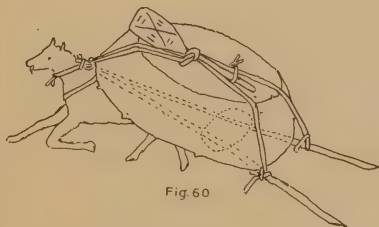


Fig. 60

Fig. 59. Diagram to show how a Bull-Boat was lashed to a Dog Travois. The boat is represented lying mouth upward, with the travois laid across its mouth. At 1, 4, and 5, short thongs bind the travois poles to the boat ribs close to the rim. At 2 and 3, longer thongs fasten the poles to ribs in the bottom of the boat. The boat is then turned over as in Fig. 60.

Fig. 60. Dog carrying a Bull-Boat as a Travois Load.

som, his wife; Long-bear and his wife, an Assiniboin woman whose name I have forgotten; Ídu-tsa-tsa-hic, a Dakota, and Bird-woman, his wife. The Dakota Indian's name is a Mandan word, meaning "scar." My husband and I completed the party.

As the horses were not in condition to stand the strain of travel over the soft and muddy ground and the swollen rivers and creeks, we went without them and carried our baggage on dog travois.

I had three dogs: The first Náaka-kidukic, or Packs-her-baby, was a castrated male, a large, long-tailed, black dog so named by my father, Small-ankle, who in battle had once struck a woman who carried a baby on her back. On this dog was loaded a bull-boat tied over the

travois basket with one edge resting upon the travois saddle. A special thong, or rawhide rope, was tied around the place where the travois poles met, and drawn double to the top of the boat. At this point, the bull-boat paddle was made fast in a knot, then the thongs were parted, each end descended over the boat and was tied to the travois poles behind. At the forward end of the boat, two thongs were made fast to a rib on either side of the frame and descending, were lashed to the travois poles as shown in Fig. 59. The boat strapped to the dog's back is shown in Fig. 60.

My second dog, named Měě'tsi-kudaec, or Knife-carrier, was a castrated male, black, long-tailed, the brother of Packs-her-baby. He was named Knife-carrier by Small-ankle because one time in battle a man with a knife in his hand pursued the Hidatsa and was shot and killed by Small-ankle. Knife-carrier carried two half tent covers on his travois.

My third dog, Māada-nútsic, or Took-a-scalp, was also a castrated male, white with large black spots. He carried two half buffalo robes for bedding, three pairs of moccasins for myself, five for my husband, an ax, a tin pail, a tin cup, and a toothed gun-barrel flesher. As pillows were too bulky to carry, we left them behind; besides, if needed, we could make one by heaping up some dry grass and covering it with a robe or blanket.

The other members of our party took the following dogs with them:—

Head-plume-woman, two dogs; Sioux-woman, two dogs; Blossom, two dogs; the Assiniboin woman, three dogs; Bird-woman had no dog and packed her baggage on her back. The rest of us who had dogs carried no bundles.

As Blossom and Head-plume-woman each had one bull-boat, we carried three altogether. Each bull-boat was bound, mouth down, upon a dog travois, as I have already described.

The men carried their guns, but no bows nor arrows; only mounted hunters used arrows for killing buffalo at this time. Deer and antelope were shot with guns only; but my father told me he once killed a deer with an arrow, and another Indian, named Fire-above, I remember, also killed a deer with an arrow.

Dress. On the hunt, my husband, Son-of-a-star, wore buffalo skin moccasins with the fur inside. To reinforce the outer sole, a second sole of tent skin was sewed to it; ankle flaps, also of tent skin were sewed to the tops of these moccasins which were for winter use. As they were to be

used in hunting, these moccasins were unornamented. The lacing strings were of buckskin. In Fig. 61 is a sketch of the moccasin made under my direction by my son, Goodbird. Fig. 62 presents the moccasin pattern. In the old days, we did not make the modern heavy-soled moccasin which I think we learned to make more recently from the Sioux.



Fig. 61



Fig. 62



Fig. 63

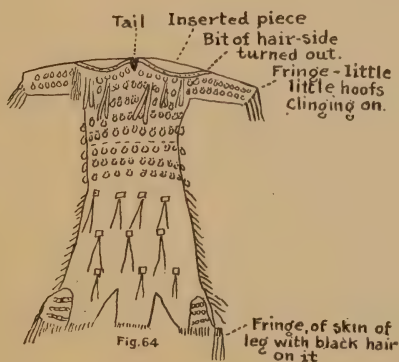


Fig. 64

Fig. 61. Type of Unornamented Moccasin worn on the Hunt in Winter.

Fig. 62. Moccasin Pattern.

Fig. 63. Coat worn by Son-of-a-star, during the Hunt Afoot.

Fig. 64. A Rocky Mountain Sheepskin Dress decorated with Elk teeth.

My husband's leggings were of old tent skins. They had no fringe, but were sewed down the side with a three-inch edge, with short buckskin thongs at close intervals. In old times we wore the same leggings in summer and winter. As my husband's leggings were for use in hunting, they were unornamented.

Son-of-a-star wore his shirt of plain white sheeting outside of his buckled leather belt of white man's make. His clout was of blue cloth with a white edge. He wore a buckskin overcoat which I made of three deerskins and measured after a soldier's overcoat. On the breast and

back I ornamented it with beadwork, in duplicate patterns which were duplicated on the back, and placed beaded bands around the wrists. It had pockets on each side. Fig. 63 shows a pattern of the coat and the beadwork. Over this coat, Son-of-a-star wore his belted buffalo robe. This second belt was an ammunition belt full of forty-four Winchester shells. The robe was worn with the fur inside and the head of the robe on the left and the tail on the right. In putting on the robe, one measured by drawing it up so that it covered the head. Then the legs were spread



Fig. 65



Fig. 66

Fig. 65. Sketch of Buffalo Robe to show Notches cut out at Shoulder to make it more Symmetrical.

Fig. 66. Front and Rear Views to show Proper Method of wearing a Buffalo Robe.

wide apart and the robe folded, right side first, over the front of the body. The left side was then folded over and the belt drawn around the middle. The reason for spreading the legs apart was to make sure that when the robe was belted about the body, the skirt would be wide enough to walk in. His gun and cleaning rod he carried on his left arm.

A good robe had a piece cut out of each shoulder and was then sewed up again to make it more symmetrical (Fig. 65). The skin of a two-year-old bull made the best robe. Fig. 66 is a sketch of my grandson, made by Goodbird, showing a front and back view as he posed with a small calfskin wrapped about him, in the proper mode of the old days. It will be noted that while the robe is folded about the body with the head to the left, when it is finally belted, the head lies on the right side.

I also wore a buffalo robe; but it was the old custom for a woman to wear her robe with the head and a little bit of the tail folded so as to show the hair. Besides, I wore a buckskin dress¹ and leggings of tent skin. My rawhide belt was drawn around my dress and tied. I wore winter moccasins like those of my husband, but, of course, smaller in size. In cold weather, both men and women drew the buffalo robes over their heads. I wore a second rawhide belt over my robe. My buckskin dress was of two deerskins, sewed together, head down. The heads were trimmed off at the neck and the sleeves made by sewing together the hind legs of the two skins. The skirt reached to about three inches above the ankle.

¹For comparative data on these types, see this series, vol. 17, part 2.

Fig. 64 is a sketch, drawn under my direction, of a dress which I once made of Rocky Mountain sheepskins.¹ It was very a rich garment and has six hundred elkteeth.²

The First Camp. The first evening we camped at a spring at Timber-facing-across-river. The women set up a frame for our camping tent of forked ash, elm, and box elder sticks, joining them at the top, like the framework for a tipi. The cover was of pieces of tent skins, each family contributing one piece or more. I brought two pieces. The tent was large enough for all twelve members of the party.

While the woman set up the tent, Crow-flies-high and Bad-brave went out to hunt. They killed an elk and brought in as much of the meat as they could pack on their backs.

As it was still early spring and the weather chilly, the hunters wore their robes as usual. Even in early summer, the hunters took a light robe with them, but in the hot months this was unnecessary. Even in midsummer, when on the hunt, the hunter wore his buckskin shirt.

Fig. 67 illustrates the method of bringing meat into camp. In this case, Crow-flies-high and Bad-brave brought back the two sides of the elk with the ribs and the two hams with the tough outer meat removed. In Fig. 67 the meat shown on the back of the hunter is also a side with the ribs. To carry such a load, the hunter turned his robe fur side in, and bound it about his body with his belt, the tail hanging down. The head and neck of the robe were turned back over the shoulders and back so the fur side was out. As will be noted in the sketch, the side of meat was suspended across the shoulders by a thong or pack strap cut from the green hide of the slain animal. A thick pad of grass was laid on the exposed fur of the buffalo robe to protect it from any juice that might sleep through from the freshly killed meat.

Roasting Meat. The two sides of elk brought in by Crow-flies-high and Bad-brave were roasted over the fire by Bad-brave and High-back-bone. They thrust a long stick through the meat and standing on either side of the fire, slowly swung the meat from side to side. When the flesh side was well roasted, they turned the rib side toward the fire and swung that back and forth until it too was cooked. It took a long time to roast

¹Buffalo-bird-woman consumed an entire half day in describing this dress and getting the sketch made to suit her. She evidently took great pride in its description and the sketch was only approved after every detail had been worked out to her satisfaction.—G. L. W.

²In 1910 Buffalo-bird-woman said, "Six times in my life, I have owned elktooth ornamented dresses. Once I had a dress with six hundred elkteeth on it.

A blind Mandan man on this Reservation makes artificial elkteeth from the leg bones of oxen. These bones, we Indians think, do not decay as do the other parts of the ox's skeleton. This man can make five artificial teeth in a day. He saws out the pieces and works them to shape with file and sandpaper. He tests the smoothness and accuracy of his work by touching the bits of bone with his lips and the tip of his tongue."

the two sides of the elk. That night we ate only the roasted meat, drinking neither coffee nor broth.

The March. We moved camp the next morning.¹ Our route lay along a trail that skirted the foothills along the river; we always used this trail when we went on a hunt up the Missouri River. Our order of march



Fig. 67



Fig. 68

Fig. 67. How Meat was carried into Camp on the Hunter's Back.

Fig. 68. Moving Camp: the Order of March.

is indicated in Fig. 68. At the head, marched the three leaders walking together; then followed a man and his wife, walking side by side, and chatting. Three dogs with their travois, followed in single file, as dogs are trained to go. Then came another woman, the wife of one of the leaders, followed by her three dogs. Next walked a man and his wife,

¹Catlin, in the course of a vivid description of striking a Sioux camp says:—
 "... in the rear of this heterogeneous caravan at least five times that number of dogs, which fall into the rank, and follow in the train and company of the women, and every cur of them, who is large enough, and not too cunning to be enslaved, is encumbered with a car or sled (or whatever it may be better called), on which he patiently drags his load—a part of the household goods and furniture of the lodge to which he belongs. Two poles, about fifteen feet long, are placed upon the dog's shoulder, in the same manner as the lodge poles are attached to the horses, leaving the larger ends to drag upon the ground behind him; on which is placed a bundle or wallet which is allotted to him to carry, with which he trots off amid the throng of dogs and squaws; faithfully and cheerfully dragging his load 'till night. ..."
 (Catlin, George, *Illustrations of the Manners, Customs, and Conditions of the North American Indians*, London, 1848, vol. 1, 45).

followed by two dogs; then another man and his wife, in single file, their two dogs following. Then came two more women in single file; two dogs brought up the rear of the procession. The diagram (Fig. 68) is, I think, a typical representation of a day's march. The leaders always walked first; each family, or if the husband was one of the leaders, the wife, followed in line just ahead of the family dogs.

It will be noted that two of the men are shown walking with their wives. This was a common occurrence. If a husband and wife were not talking together, the husband went ahead and the wife followed, but if they were chatting or wished to converse about anything, the husband joined his wife and they walked side by side. You say that when a white man walks with his wife upon the sidewalk in the city, he thinks it is polite to walk on the side next the road. We had no custom like this among our Indians in old times. A man walked with his wife on either side, as might be convenient. If a man were not talking to his wife, he walked in front of her. I do not know why this was done, but it was our old-time custom and we always followed it. We were quite a jolly crowd. As we moved along, we talked and laughed, and told amusing stories.

The trail led over the brow of the bluffs that overlooked the timbered bottoms along the river. Anyone who has traveled up the Missouri River will understand what I mean. This was a fairly well marked trail since it was used by our hunting parties, ascending and descending the river, by travelers, and perhaps by buffalo herds. There was sufficient travel over the trail to form a perceptible road.

The Second Camp. Our second camp was made at the Slides, at a spring about half a mile in the Bad Lands. The men killed a buffalo bull so we had an abundance of meat for supper and breakfast the next morning. For supper, we had a kind of blood broth which I prepared.

Blood Broth. Into a pail that could hold about three gallons I poured a gallon and a half or two gallons of blood from the buffalo bull. To this I added one cup of water, a piece of buffalo fat about twice the size of an egg, and about a double handful of boiled dried squash. Before putting the pail on the fire I added the marrow from the buffalo leg bones.

I cut a section of the trunk of a small chokecherry sapling about two feet long and stripped the bark toward one end, letting the strips cling an inch or two at the end and tying them into a ball or knob. I used this stick as a paddle, for as soon as the broth began to boil it needed constant stirring, lest it spoil. The bark knob on the end of the stick not only aided in stirring but also imparted a cherry flavor to the broth.

I cut another stick and peeled it quite free of bark. I thrust this into the broth from time to time to see if it were done. If the blood clinging to the stick when it was withdrawn was still red, it was not done; but if the stick looked clean and white, the broth was ready to serve. When ready, the broth looked brown instead of red as at first. As it was a delicate dish¹ it would spoil if kept too long on the fire.

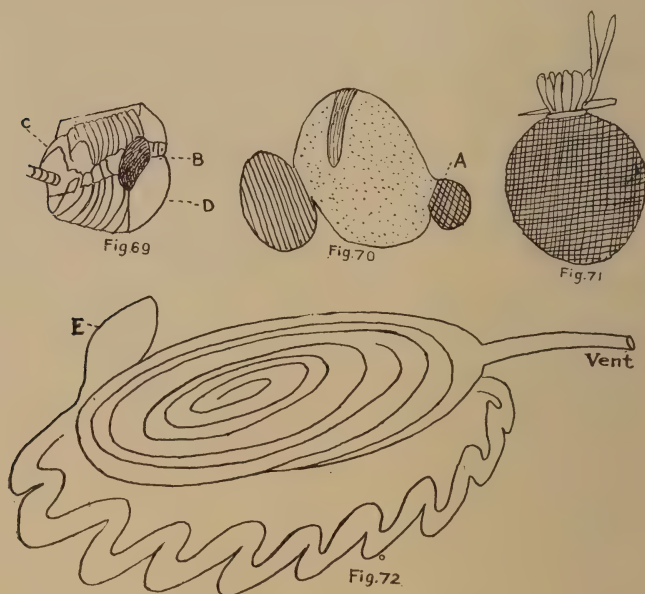


Fig. 69. Sketch of exposed Buffalo Breast to show where Blood for Blood Broth was obtained.

Fig. 70. Sketch of a Buffalo Paunch.

Fig. 71. Bag made from Part of Paunch and filled with Blood.

Fig. 72. Sketch of Buffalo Intestines.

The blood to make this broth was obtained as follows:—Fig. 69 is a sketch, made by Goodbird, of the exposed breast of a freshly killed buffalo; Fig. 69C shows the heart with the lungs beneath; Fig. 69D is a membrane lying between the lungs and the intestines, called *núti-coki*, or ribs-front, meaning something in front of his ribs; the black spot (Fig. 69B) represents a pool of blood that always collects here and is held at this place by the membrane.

¹For further discussion of this peculiar method of preparing soup see this series, vol. 5, 26–27.

Fig. 70 presents a rough sketch of a buffalo paunch. The inside is covered with little cells which we call "hairs." On these divisions of the paunch these cells lie square (sic). The section marked A (Fig. 70) was cut off, the contents shaken out and the sack turned wrong side out. Now one man held the mouth of the sack open while another scooped the blood from the carcass with his two hands joined together like a cup. The clotted blood was thrown away since it was difficult to cook and was likely to spoil the soup. When the bag was filled, a stick was skewered back and forth through the edges of the mouth; these were gathered together beneath the skewer and bound with a sinew (Fig. 71). Thus tied, the sack of blood, could be hung on the saddle by a thong or borne home by hand. In thrusting the skewer into the mouth, I gathered the two edges together, folded them back and forth, and thrust the skewer through these folds. This drew the two edges of the mouth together very much as when we sew two pieces of skin together.

In the summer time we made a kind of blood pudding. I presume this might have been made in the winter, but I never did it myself, as it was much harder to cook.

Blood Pudding. Fig. 72 presents a rough sketch of a buffalo's intestines with the vent marked. What we call the "crooked" intestines lie outside of the mass with the "straight" intestines within. E marks the end of the crooked intestines. This is a sack filled with dung and water. This sack was removed, turned inside out, and the outside surface cleaned by rubbing on the prairie grass. Of course, this outer surface had previously been inside and was fouled by the contents of the sack. This sack was now filled with blood from the breast of the buffalo, as in the case of the paunch, and skewered in the same manner. As previously stated, only the thin and not the clotted portions of the blood were taken.

Before the sack was tied, the three leg bones of the slain animal were cracked at the butchering place by striking them against one of the buffalo horns. The marrow was extracted with a knife, an arrow point, or a cleaning rod, and added to the blood. If they were in season, some ripe juneberries were also added.

At the camp a fire was made. When it had burned down, the coals were pushed aside, leaving a bed of hot ashes upon which the bag of blood was laid with the mouth tightly closed. A man rolled the bag back and forth over the ashes with a stick so that it would not burn. The stick was not fastened to the bag in any way. When the outside of the bag became crisp and charred, it was taken out and allowed to cool. Then the mouth was cut open.

This pudding was very good. A man would take a spoon and eat from the opened sack, crying, "Aha-héy! sákits!" "Hey! Good!" Then he passed the bag to the man next to him, and so on around the circle. When it was the women's turn, we emptied what was left into a bowl, threw away the sack, and all ate together. We used either a buffalo horn or some other kind of spoon.

The scene I have described might take place either in summer camp or in an earth-lodge. The men ate before the women, for it was customary when a man had his favorite and finest foods cooked, to call in perhaps five or ten of his friends. He was thought to be very ungenerous if he did not invite his men friends. For this reason, the men ate first, since they were guests. They usually left some of the pudding for the women, perhaps a quarter or more of it. If my husband called in some of his friends to eat a blood pudding and they left me a quarter of it, I might either eat it myself or else I called in some of my women friends. If a man or a woman ate his best foods alone, the people said, "That is a bad man," or, "That is a bad woman," but if he or she invited his friends, people would say, "That is a good man," or "That is a good woman."

Ownership of Slaughtered Game. When game was killed and brought to the household the meat and skins belonged to the women, never to the men. We might share these with our parents and relatives or friends, or do with them just as we pleased, since they belonged to us.

Story Telling. In the evening, we built a big fire in the tent to light it up, sat around it, and told stories. One man usually told the story while the rest listened and laughed. We told stories of traveling, of war parties, or of men or people who did unusual things, either good or bad; but generally the women did not talk much. We sat and talked until quite late, perhaps about eleven o'clock, and then we retired to our beds.

Third Camp. We arose before sunrise the next morning. As soon as breakfast was over, the men started out to hunt. As we had killed a buffalo bull the day before, we thought there might be herds in our vicinity. The men spent the whole morning searching for signs of the presence of buffalo, but found none. Early in the afternoon, we broke camp and went on about five miles, making camp again on the south side of a lake lying in the timber near Shell Creek.

There was still snow on the ground and the ice in the Missouri began to break up the day we killed the buffalo bull.

Fourth Camp. The next morning we moved on again and in the evening camped at Deep Creek.

Meals. When on the march we did not stop for a meal at noon, but ate at any, or all the time, if we were hungry. We carried with us plenty

of cooked meat for our lunch and ate whenever we were hungry. If either my husband or I became hungry, I opened my lunch bag and distributed the food so that each member of the party got a share.

Feeding the Dogs. On the march we fed our dogs and were always considerate of them. When the rest of us ate lunch, the dogs also ate. (See pp. 201-202.)

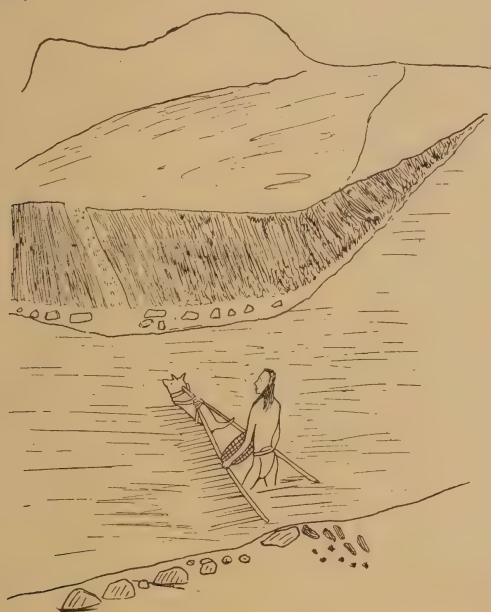


Fig. 73. Assisting a Dog to swim a Creek.

Dogs Crossing a Creek. If our dogs needed to cross a creek too deep for them to ford easily, one of the men waded into the water and held the rear end of the travois out of the water while the dog swam across (Fig. 73); in this way, the objects carried on the travois basket were kept dry. The man raised the two ends of the travois poles very much as a white man lifts the handles of a plow.

Unloading the Dogs. In the evening, when we arrived at camp, the travois were removed from the dogs, the baskets unloaded, and the travois stood up on end with the smaller ends tied loosely at the top, by their neck collars, like the framework of a tent (Fig. 74). They were set up in this fashion so that they could be kept dry, for if a rain came up, the wind soon dried them again.¹

¹See p. 220.

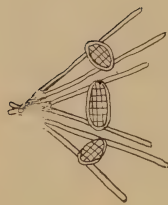


Fig. 74



Fig. 75

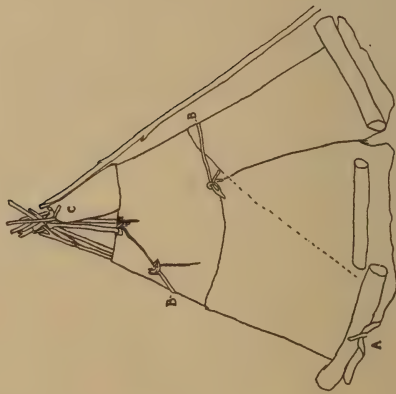


Fig. 76

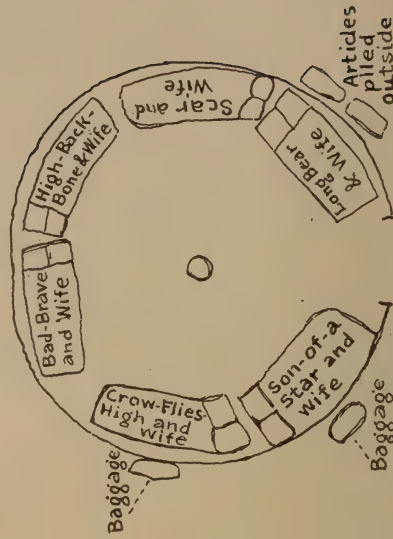


Fig. 77

Fig. 74. Travois stacked for the Night.

Fig. 75. Construction of Bed used in Tent on the Hunt.

Fig. 76. The Skin Tent. A, tent pin here driven into the hard ground to prevent log from rolling off the edge of the tent cover; B, B, rawhide thong drawn around the tent to firm it; C, Saddle skin placed as a wind shield to prevent smoke from blowing down the smoke hole.

Fig. 77. Position of the Beds within the Tent.

In the morning, each dog was harnessed to his own travois, as it was our custom never to interchange the travois belonging to the several dogs.

Water for Dogs. I never carried water for my dogs, although I heard that other people carried it with them in buffalo paunches. I have heard that the Assiniboin often did this, and though I never saw it done in my own tribe, it is quite likely that this custom was sometimes followed. (See p. 225.)

The Tent. The tent we used on this hunt was set up anew at each camp with a framework of freshly cut poles. We always pitched the tent in a rather open place in the timber and on rising ground, a knoll or ridge, where the snow was not so deep. I had brought with me the only hoe in camp and with this I scraped the snow off the ground.

The foundation for the tent framework was of four forked poles, the tops interlocking at the forks.¹ Then an additional half dozen unforked poles were cut with which the circle was completed.

The tent cover consisted of six pieces of skin, each one and one-half or one and one-quarter hides in size, and roughly rectangular in shape. The four corners of each of these rectangular pieces were pierced so the skins could be tied together in a series. Each woman contributed at least one piece of skin toward the completion of the tent. The tent poles were covered in two sections: an upper and a lower series of skins. The lower series was put on first; at intervals, the upper edges of the skins of this series were tied to the tent poles to stay them. The upper series was put on in the same way, but overlapped the lower series like shingles on a house.

As will be noted in Fig. 76, the door, too, was made to overlap, as shown by the dotted line. To enter the tent, it was necessary to raise this door flap and step over the overlapped portion.

Since the ground was still frozen, tent pins could not be used; instead, small logs were laid along the bottom of the tent upon the edge of the tent skins. For greater security, one or two of these logs was held in place by laying them upon the edge of the tent cover, turning the edge of the cover over the log, either wholly or partly, and inserting a tent pin in the ground. A shallow hole was dug in the hard ground with an ax and the peg driven in, as will be noted to the left of the tent shown in the illustration (Fig. 76A). To secure the tent still further, a rawhide thong is tied just above the door, passed around the tent, and then tied to the top of one of the exposed poles (Fig. 76B).

¹For a general statement of tipi structure and distributions for the different types see this series, vol. 21, 222, and vol. 5, 108-117.

In windy weather, a saddle blanket of buffalo belly skin was put up on the windward side of the smoke hole where it was held in place by a forked stick, one prong of the stick being thrust through two apertures cut in the skin (Fig. 76C). Its purpose was to prevent the smoke from being driven into the tent by the wind.

Blossom, Crow-flies-high's wife, and the Assiniboin woman, as well as I, had brought axes. The men carried no hatchets.

Pipes. Crow-flies-high and High-back-bone carried pipes in their tobacco bags together with tobacco or some other smoking ingredient. The tobacco bag was tied to the belt on the right side.

The Campfire. During meals we sat in a circle around the fire and facing it, each man with his wife. The food bowls from which we ate were placed before each couple. We had no fixed places in front of the fire, but sat wherever we were inclined.

The Beds. There was a bed for each couple in the tent, six in all. They were placed head to head and foot to foot. As one entered the tent, the first bed on the right was that of Long-bear and his wife; next, was that of the Sioux, Scar, and his wife; then followed in order the beds of High-back-bone and his wife; Bad-brave and his wife; Crow-flies-high and his wife; and finally, that of Son-of-a-star and myself. There was no particular reason for this order, except that this was the arrangement at the first camp, and these places became fixed so that when we made camp, each couple put their bed in the same place (Fig. 77).

Fig. 75 is a sketch of one of these beds made by my son, Goodbird. A small log was laid parallel with the wall of the tent and pinned in place by small stakes driven into the ground. Grass was cut with our hoe and heaped on the floor between the log and the wall of the tent. Over the grass were laid two buffalo robes, fur side up. A third, was folded, fur side out, for a pillow and laid at the head on a grass cushion. The object of the log was to keep the grass from working out from under the bed and to prevent sparks from setting fire to the grass. The husband always slept on the side toward the fire.

Arrangement of Baggage. Guns were tied to the tent poles, stock down, each gun over the bed of its owner. Other packages, especially those not easily damaged, such as packages of dried meat, fat, or buffalo intestines, were placed outside of the tent along the edge of the tent cover as shown in Fig. 77.

The Dogs' Sleeping Place. The dogs slept wherever they chose, sometimes near the tent, sometimes farther removed. The dogs belong-

ing to one family sometimes slept together. However, all the dogs of the camp never slept together in one place as one pack. (See Kennels, p. 202.)

Leaders. As this was only a small hunting party, there was no regularly chosen leader; but, as I have said, on the march, two or three men always went ahead of the party.

Buffalo Hunting on Deep Creek. The day after we pitched camp at Deep Creek, the men of our party discovered that buffalo were crossing the Missouri River from south to north, about five miles from our camp.

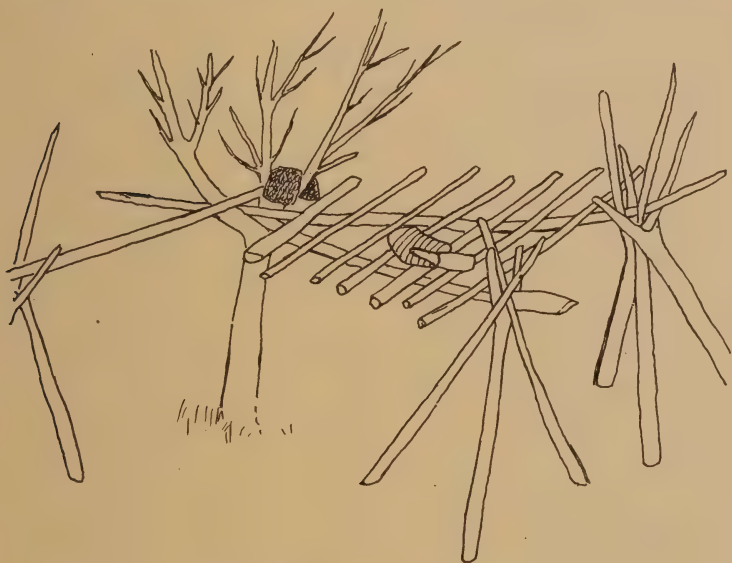


Fig. 78. The Meat Drying Stage.

The hunters waited on the bank until the buffalo landed and in this way killed five fat cows. The women remained at the camp. When the hunters discovered that the herd was crossing, a great number had already landed so that part of the herd was on either side of the river.

The men cut up the buffalo and put up stages on which they placed the meat. Such stages were made about five feet high, so as to be out of reach of the wolves. Usually, the hunters looked for an elm tree, a box-elder, or ash, with the limbs branching out in a fork about five feet or a little more from the ground. When such a tree was found, they gathered up some dead and dry forked limbs and put up the other two or three supports for the platform (Fig. 78). Of course, the platform shown in

Fig. 78, is not exactly like other hunters' platforms which were put up very rudely. If possible, the hunters used a tree as one of the supports for the stage; they made the others of dead and dry forked poles. In Fig. 78 is a sketch of the meat stage constructed at Deep Creek as I recollect it. It was strong enough to keep its position without having the supporting posts thrust into the ground. Meat was laid not only upon the platform, but was hung upon the tops of the forked poles and in the branches of the tree. I remember that the hides were not laid on the platform proper, but were folded over the limbs of the tree as in Fig. 78. Goodbird has only drawn two pieces of meat lying on the platform, but of course, when the hunters left the stage the platform was piled full of meat.

Sometimes, to protect meat from wolves and coyotes, hunters stuck a cleaning rod in the ground with a cloth tied to it.

Cuts of Meat. We cut up a buffalo carcass according to a regular plan. The various cuts of meat, as I now recollect them, I will name in my own language. I give those I can remember, but there are probably others which I do not at this moment recollect. I have no carcass of a steer at hand in which I can point out the cuts and it would be difficult for me to describe them clearly.

The following are the names of the larger pieces:—

Ici'taduka	Du'ta
Ici'tadytapa	Matsu'adu
Idikorě'ěxi	A'da
Ici'tipitsětsě	A'dapahu
I'dikaduidu'	Kidi'ki
Itsi'dupakua a'du idu'	Natidapa'
Na'tiduka	Naxáxi
Icu'taduidu	Ici'tidu
Ici'takakcu'i	Kidi'kaputi
Edika'sa	A'padupa'ta

The following are the names of the smaller cuts we recognized:—

Itawi'dica	Adu'a
Ada'ci	Mitěduwa'ta
Itawidaktsi'hě	Napi'tutsu
Tsěcai'kipa'caki	

Flaying of Hides. The hide of a one or two year old buffalo was taken off whole; that of an older animal was slit down the back. When put on the stage, it was folded flesh side in, with the edges turned in, as shown in Figs. 79. This was only a temporary provision. Lest it begin

to spoil, a green hide should be stretched to dry the second day after it is removed. A hide was folded, as shown in Fig. 79, merely for storage over night on a stage, or for transportation to the tent to be fleshed and dried the next day.

The Choice Pieces. After the hunters had placed the hides and the greater part of the meat from the five cows on the stage, they returned to the camp, packing some of the choicer cuts on their backs. Usually, these were the tongues and kidneys and the meat on the breastplate bone. They brought in only the choicest pieces because we already had a good supply on hand.

How the Cuts were Slung. Since we had no horses with us on this hunt we naturally could not transport any of the large cuts of buffalo meat on horseback.¹ Usually, the larger cuts were packed home on horseback by binding together with a thong two cuts of about equal weight, in such a way that they could be slung over the horse's back. Each of the larger cuts was always pierced in a special place to receive the thong, which consisted of a piece of green hide about two feet long, cut from the slit edge of a half hide. In Fig. 80 is shown the tie by which the smaller cuts were fastened to the thong. A long slit was cut in one end of the green thong. This slit end was then passed through the

hole pierced in the cut of meat and the end drawn upward and passed through the slit above the piece of meat. Then it was drawn through far enough to permit the cut of meat to be passed through the slit (Fig. 81). Finally, the thong was drawn, completing the knot.

For the larger cuts of meat, such as a side with the ribs in it, slits were cut in each end of the thong, as previously described. Through a

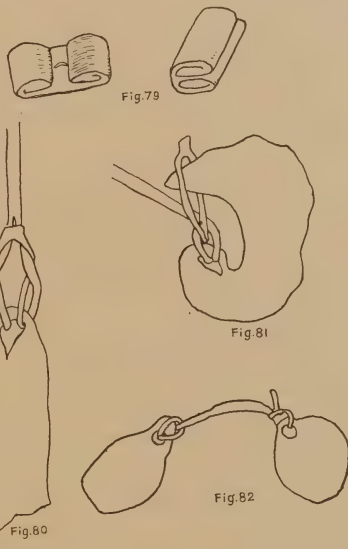


Fig. 79. A Green Hide temporarily folded before Flething.

Fig. 80. Method of fastening Meat to a Thong of Green Hide for Transportation.

Fig. 81. How the tie shown in Fig. 80 is made.

Fig. 82. Two Pieces of Meat tied together for Transportation.

¹For additional data on these points see vol. 5, 42.

hole pierced in one of the two pieces, the slit end is drawn and looped by drawing the entire thong back through this slit. Consequently, the second cut was merely pierced, the thong drawn through, and tied. Fig. 82 is a rude diagram explaining this tie.

The Fifth Camp. The next morning, we crossed the Missouri about four miles further up the river at an open place where grew a few scattered willows. Both the men and women set to work to cut a path through the willows for the travois. Then we loaded the travois and the dogs dragged them to the river's edge. We had two bull-boats besides my own to use in ferrying our equipment over. These belonged to Head-plume-woman and Blossom (or Squash Blossom, as it should be translated, though we usually say Blossom).

Ferrying over the Missouri by Bull-Boat. My husband and I loaded our bull-boat and pushed off, the dogs swimming after us. We bound our three travois, piled one upon the other, to the edge of the boat by a short thong attached to the saddle of each travois by a large loop in such a way that the saddle projected upward over the boat. The lower travois basket was immersed in water, but the upper ones were hardly wet. I paddled while my husband sat in the back of the boat. (See pp. 271, 285.)

Our object in crossing the Missouri was to find buffalo. As I have remarked, only part of the herd had crossed the river, so the hunters said, "We think there are more buffalo on the other side." When we arrived at the opposite shore, my husband and I unloaded our boat and loaned it to one of the other families; I have forgotten which one. The members of the party crossed the river, bringing over all their possessions in two trips. As it was but a short distance from shore to the new camp, we ourselves carried everything up the bank and did not put the travois on our dogs.

Now a dispute arose among the members of the party. The hunters wanted to abandon the meat from the buffaloes they had killed the day before, saying, "There is better hunting on this side. Let us kill buffalo while we have an opportunity and abandon the meat we have staged on the other side of the river." We did not find signs of buffalo as plentiful as we had expected and the men began to argue, "We had better return for the meat we staged."

The next morning, we crossed the river again, with our dogs and travois. The first trip three of us crossed in a boat, returning for the other members of the party. It was about three quarters of a mile from our landing place to the spot where the meat was staged. We made one

trip to the stage, bringing back all the choicest meat, loading it partly on the travois and partly packing it ourselves. We made several trips across the river for the meat, but I do not recollect how many. Both the men and the women in the party helped pack the meat to the boats, we women using our pack straps while the men used rawhide ropes we had brought with us.

I have described how the elk was packed to our camp (Fig. 67); buffalo meat was transported in the same manner, except that the men used dried rawhide ropes and the women, pack straps. I packed an entire cow hide, cut in two pieces, in one load.

We reached camp with our last load in the early afternoon and spent the rest of the day busily building our stages, placing our meat on them, and staking out our hides for drying.

The next day, the wind shifted to the west so we knew the buffalo could not smell the smoke of our campfires. We also built a fire under the stages to smoke our meat. My own stage was a platform of poles set upon four stays for posts; each support was a kind of tripod, made of three forked poles.¹

Killing and Butchering. The next morning, we saw buffaloes scattered thickly on a bluff on the south side of the river about a quarter of a mile away. The men immediately set out afoot to follow them. In camp, the evening before, we had been very careful to make no unnecessary disturbance, chopping no wood, and silencing the dogs when they barked. About noon, after we had made another crossing for some more of the meat we had left on the drying stages on the other side of the river, the men started on the hunt. Soon we heard shots, Bang, bang, bang, bang! The buffalo were so close we could see the men fire their guns. Of course, they all aimed at fat cows: some killed two, some only one. In a short time, however, the buffalo were frightened by the reports of the guns, and fled, disappearing over the bluff, away from the river.

The hunt took place on a bit of bad land formation so frequently found on the Missouri River. Our hunters crept up on the herd, slipping up ravines and hiding behind knolls or swells in the land, taking advantage of anything that would hide them from the view of the buffaloes.

As the weather was still cool, our hunters set out with their robes belted about them. When they returned, each hunter packed a load of meat on his back (Fig. 67). Only the choice cuts were brought back in this fashion: the tongues, the kidneys, and the ham bones for the marrow;

¹The foregoing was related by Buffalo-bird-woman in 1913; the following portion of the account was related in August a year later.—G. L. W.

the rest of the meat was left behind on the meat pile. Some of the ribs with the meat clinging to them were also brought in. A hole was cut through the kidneys and the tip of the buffalo tongue through which a strip of green hide was strung to carry them. The men returned while the sun was still an hour or two high. We were glad to receive them and to see that they had had such a successful hunt.

Our camp consisted of a single skin tent as described in Fig. 76. The following morning we went, with our dogs and travois, to bring in the meat left behind by the hunters. When we arrived at the butchering place, I saw that a stick on which a piece of white sheeting (the head cloth of one of our hunters) had been tied like a flag, had been thrust into the ground to frighten away the wolves.



Fig. 83. The Meat Pile and its Contents. 1, The meat pile covered with the skin; the meat lies upon another skin laid upon the ground, flesh side up. 2, The cloth flag flying from a gun rod. 3, The skinned head and neck with tongue removed. 4, The rejected ends of the legs, skinned. 5, The lungs, heart, and windpipe; the heart was sometimes taken and sometimes rejected. 6, The liver. 7, The backbone. 8, The guts and stomach, both rejected.

In order that they might not be seen when raising their heads above the sky line from behind a hill, it was customary for hunters and warriors to wrap a piece of white sheeting around the head. This cloth was usually gray or yellowish gray as it became somewhat soiled by use. It was one of these head cloths that had been tied to the stick. Formerly, before cloth was obtainable, hunters or warriors wore buffalo skin caps,

in winter, fur side in; in summer of skin from which the hair had been scraped. I do not know whether a Hidatsa hunter in very old times ever tied a skin around his head like a kerchief. This custom apparently became common after we obtained white sheeting from the Whites. All our stories relating to old-time customs tell only of caps worn by hunters and warriors.

Although they were skinned almost to the hoof, the ends of the four legs up to the joints were cut off and thrown away. The head was skinned, the tongue taken, and the rest of the head discarded; the flesh on the neck was also rejected because of its toughness. If fat, the entrails were saved; otherwise, they were thrown away. When they were kept, they were emptied of their contents by being drawn through the hand and compressed by the thumb and fingers.

Goodbird has drawn a sketch of a meat pile as he has observed his father, my husband, make it (Fig. 83). It will be noted that the meat lies on one hide and is covered by another. The pile contains the meat of two buffaloes. The shape of the pile as here drawn is caused by the ribs and leg bones lying underneath the overlying skin.

In winter, when the snow lay on the ground, the hunters dug a hole in the snow, put the meat in it, and covered it with a skin. Then a cloth flag was tied to a stick and driven into the pile to keep the wolves away. Very commonly, when hunters were butchering buffaloes, wolves, coyotes, and kit-foxes sat around at a distance on their haunches, like dogs. As long as the flag waved over the meat, they did not approach, but as soon as the meat pile was removed, they ran forward at once to seize the rejected pieces. I have seen as many as ten or twelve of these animals sitting in a circle while the hunters were butchering; indeed, they appeared almost every time a killing was made, keeping just out of bow shot. All these animals were much bolder and more numerous when I was young. One time when we were camping, a kit-fox came into the tent after we had gone to bed and ran over the face of one of the sleepers. There were several foxes that smelled the meat in the tent and they were bold enough to come in where we slept and try to steal it.

When the hunters left the butchering place, the wolves, coyotes and kit-foxes rushed in to eat the rejected pieces that were left on the ground. The wolves snapped and fought with one another, but I never saw the foxes or coyotes fight. The pack soon cleared up the discarded scraps. Sometimes big red foxes also joined the pack.

Transporting Meat with Dogs. All the members of the camp went to the butchering place the next morning to bring in the meat left there

through the night. We took our dogs with us, but everyone expected to help pack the meat back to camp; however, the men carried the heaviest loads.

My husband and I led our dogs to his meat pile and loaded our travois. We did not cover it, neither did we pierce holes through the viscera of the pieces. The meat was simply loaded on the basket and bound with thongs attached to the travois basket for that purpose. I knew by experience how much of a load each of my dogs could drag. I usually tested the weight of the load by raising the travois, holding the poles about half way between the basket and the dragging ends. As they were well fed, the dogs were very quiet and not at all excited when they arrived at the butchering place. However, though they were not at all hungry, as soon as we arrived we gave each dog a small piece of meat. After I had loaded both travois, I made up my own pack which consisted of one buffalo cowskin; the sinew from one side of a buffalo cow with all the meat attached, the ribs of one side with the meat attached, and one buffalo tongue. This was such a heavy load that when I came into camp the rest of the party were astonished. They came up and tried the weight of my pack and said, "This is too heavy for a woman to carry, she should not try to carry so heavy a pack."

We had started with our dogs just after sunrise. We had risen quite early, cooked our breakfast of fresh buffalo meat, boiling some and roasting the rest. We drank the broth from the boiled meat instead of coffee. I remember we boiled our meat in a tin pail and that some had tin cups from which they drank, while others had horn spoons.

We made two trips to the meat pile. As I have said, the first trip I loaded both my dogs with meat and I myself carried home one skin and some meat. The second trip, each dog was loaded with one half a skin and some meat. This half skin was spread on the travois basket, flesh side up, and folded over the meat. I have already remarked that the meat on the travois basket was not covered during the first trip. On the second trip, I also carried home some meat, but no skins. As my husband had killed two cows, both skins have been accounted for. Buffalo cows were commonly skinned by splitting the hide down the middle of the back, if it was intended to use the skin for robes; but if a bull-boat was to be made of the skin, the animal was skinned whole.

Kidneys from freshly killed buffalo were ordinarily eaten raw or roasted on the coals. They were never boiled, but were usually eaten as soon as they were brought in and while still warm, as they soon spoiled; indeed, they could hardly be kept over night. The fresh warm kidneys were especially coveted by sick people.

How We Traveled with Bull-boats. We remained in this camp about ten days. The men hunted until they succeeded in killing buffalo; then we took a half day to bring in the meat which the women dried. Between hunting periods, when it was necessary to dry the meat, the women busied themselves in making bull-boats.¹ We had brought with us one bull-boat, but I now made another. Each of these boats had a cowskin cover. When each family was provided with two bull-boats we ceased making them. My husband and I loaded one of our boats with hides and meat while my husband and I paddled the second. In the boat with us were our dogs and some additional bundles. Hereafter, I shall call the first mentioned our freight boat, and the second our passenger boat.

I have said that the freight boat was loaded with hides and dried meat. The hides were tied up, two or three in a bundle, flesh side out. The meat was tied into bundles small enough to be readily lifted. When a buffalo was killed, the paunch was taken out and dried for use as a wrapping when we made up a bundle of dried meat. The dried paunch was laid flat on the ground and the meat placed upon it. I then stamped the dried meat down solid with my feet, standing on the bundle for this purpose. The bundle was then tied snugly with rawhide thongs. Of course, these thongs passed around the dried paunch which was wrapped about the meat bundle.

Other bundles were simply tied with thongs, for naturally, we did not have enough paunch coverings for all of them. To make a paunch wrapping, the whole paunch was taken. Unless meat was very scarce and we had to save as much as possible, the inner coat of the paunch was peeled off and tossed away. The paunch was then cut to dry it. When properly cut, its length and width were approximately the same. The object of cutting the paunch was to make a symmetrical sheet. The walls of the paunch were thicker in some places than in others. In these thick places the paunch was split and the pieces opened and folded back, making the paunch into a bigger sheet when it was spread out. We knew just where to split it to make the largest and most symmetrical sheet. Also, if the thick walls of the paunch were not split it was apt to spoil in drying and become decayed and full of worms.

A buffalo bull, if a fat one, made just four bundles of dried meat; a buffalo cow was smaller. I am not sure just how many bundles the dried meat of an average cow made.

We camped at this place, ten days; the men hunting, the women drying meat and making bull-boats. When we were ready to move

¹See pp. 276-277, 285-287, 295.

camp I carried the bull-boats down to the river, one at a time, the new boat first, turned upside down on my head like a big hat. At the river's edge I drove a stout stake into the soft mud and tied one of my boats to it with a thong and the boat floated out on the water. The river bank on



Fig. 84



Fig. 85

Fig. 84: Buffalo-bird-woman and her Husband paddling one Bull-Boat and towing another loaded with Meat and Skins.

Fig. 85. Wading into the River to load a Bull-Boat.

the side nearest the camp, which was about seventy-five yards from the river, was not steep. I packed the bundles I wanted to load into the boat down to the bank on my back, using a two-banded packing strap. First, I carried down the dried hides, each tied singly. I put them into

the new boat, fitting them in snugly. I had five hides in all to load on my boat; I counted two half hides together as one bundle.¹

Having loaded the hides, I proceeded to add my bundles of dried meat. When the boat was full, I covered all neatly with one of the pieces of old tent skin I carried with me to help cover our improvised tent which the camping party set up at every stopping place. This covering was bound down by thongs passed over the mouth of the boat (Fig. 84). Then I lashed my two travois in the rear of the boat so the baskets would be kept dry on its edge although the ends of the travois dragged in the water (Fig. 84).

When I brought the two boats down to the river, I set my passenger boat on the ground, mouth up, but pushed the freight boat out into the water, tying it with a thong to a stake driven into the bank.

When I had loaded the freight boat, I pushed the second (passenger) boat out on the upstream side and lashed both together securely by passing a thong under a rib inside each boat and drawing it taut, allowing no play to the boats. The tow boats were lashed head to tail, that is, every bull-boat was built so that the head of the skin covering was forward; in this case the second boat was lashed with its head to the tail of the first (Fig. 84). Then I untied the freight boat and let it float until the passenger boat was abreast of the stake, where I anchored it. I recollect that I put some bundles into the second boat, but do not remember now what they were, probably meat or hides. I placed my ax and hoe in the bottom of the boat. While I was loading the boats I had to wade into the soft bed of the river until the water came up to my knees, so I removed my moccasins and leggings and drew my skirt up under my belt to avoid wetting it (Fig. 85).

When both boats had been loaded, I waded out and climbed into the passenger boat, being careful to sit as nearly in the middle as I could. I now called my two dogs, U'x-itic, Short-tail, and Ita-cípihë, Painted-face-black-killed,² and they readily sprang into the boat. My husband, who had helped to load the boats, like myself, had taken off his moccasins, but retained his leggings which he had rolled up to his knees. He put his gun in the boat, leaning the barrel against the rim. He untied the boat,

¹Buffalo-bird-woman is not very clear here. She has stated in a former paragraph that the dried hides were tied up two or three to a bundle. She here seems to imply that one entire hide made a bundle, and two half hides made one bundle. Neither Buffalo-bird-woman nor Goodbird in translating is careful to distinguish between a whole hide and a half hide. Goodbird usually translates the term by "buffalo skin" unless I am careful to question him. I think Buffalo-bird-woman here means that one whole buffalo hide or two or three half hides made one bundle.—G. L. W.

²Buffalo-bird-woman gives the number of her dogs as three and names them differently in the portion of her account related in 1913. It was agreed between us that names of any dogs of her family might be used as she could not always recollect how individuals of the pack were named in a particular year.—G. L. W.

waded in, pushed it out into deeper water, and climbed in. As his weight brought down his side of the boat, I moved toward the opposite edge to balance the boat and prevent it from upsetting (Fig. 84). Fig. 84 will give an idea of how our passenger boat was loaded. My husband and I each had one paddle. I had brought my paddle from the village. It had a hole in the middle to make it more easily managed, for the water passed through the hole so that the paddle did not play from side to side as a solid paddle invariably did. While in camp I had made a second paddle of a piece of drift cottonwood that had floated down the Missouri and was cured. I made a hole in it similar to that in the old paddle. My husband used the newer paddle, since it was larger and heavier than the old one which was better suited to my strength.

I sat at the left of the boat with my feet turned to the right and paddled. An Indian woman always sat in this fashion unless she was left-handed; in that case her feet were turned to the left. When wearied, my husband and I changed places, but even then I sat with my feet to the right. I do not recollect whether my husband sat with his feet to the right, probably he did. We each sat on a bundle of some kind (Fig. 84). We sat a little forward, the dogs and some bundles behind us, and a few bundles in front of us.

When at home at our village, if I had occasion to cross the Missouri in a bull-boat, I knelt in the forward part of the boat because I could deliver a better stroke with the paddle. However, on this journey, there were two of us paddling, one on either side; besides, as we were going downstream a heavy stroke was unnecessary, since we had merely to keep the two boats in the current.

The two paddles were decorated with my husband's honor marks (Fig. 86). Of these, the one on the left was brought from the village; like the newer paddle it was made of cottonwood. The entire design refers to the time when my husband was wounded in his right thigh, the horse he rode being killed with the same shot. The uppermost marks represent the tracks of a man's moccasins with wound marks like flowing blood falling from them. The three lowermost symbols are hoof marks of a horse, also with wound marks. The design means, of course, that my husband had been wounded in the foot or leg and that his horse had been shot. The marks on the second paddle signify "I was in battle and an enemy was killed and I was one of four warriors who counted coup upon him." The spiral design signifies, "I struck one enemy." In this case, the enemy that was struck was not the only one killed in the battle. I made this paddle at the same time I built the second bull-boat. My hus-

band smoothed it down with his knife and added his honor marks by anointing his index finger with buffalo fat, dipping it into his paint bag, and drawing the design in red upon the paddle with his finger. The paddle was always dipped into the water painted side forward. As it was not used against the water the design was retained for a long time. The back of the paddle was unpainted.

Son-of-a-star carried his paint in a paint bag. In olden times the husband carried a paint bag and every morning painted his face, as did his wife and children also. In those good times everybody in the village appeared with faces handsomely painted, though at present we no longer follow this custom and walk about with unpainted faces, looking just like ghosts. In olden times, young men usually provided themselves with a light red and a yellow paint, though older men used only the red paint.

On this hunt, my husband, Son-of-a-star, carried a paint bag for his use and mine; but an unmarried woman carried her own paint bag. He did not, however, trouble to paint his face very often, only painting every now and then. I painted every morning because the wind and air made our faces dark, tanned them as you say, so we painted that our complexions would not darken. If a woman with a very light complexion did not paint her face it became as dark as anybody's. To paint my face I rubbed grease made from buffalo back fat into my palms and then rubbed my palms over my face. Then I opened the mouth of the paint bag and with the flat of my three fingers I touched the paint, principally where it clung lightly to the sides of the skin bag within. Of course, a little of the paint clung to my fingers which were oily with the buffalo fat. I now touched my fingers, first to one cheek and then the other, and finally I rubbed the paint evenly all over my face.

My husband, Son-of-a-star, carried a small bag containing an awl, scissors, and sinew thread and also his paint bag. When he was a young man he carried a small lookingglass in a beaded case with an otterskin handle which he slipped over his left wrist. He used this mirror when he painted his face. The young men were rather particular about their toilet.

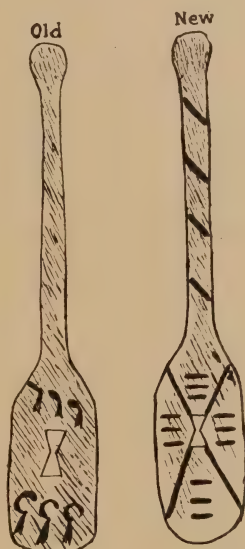


Fig. 86. Bull-Boat Paddles decorated with Honor Marks.

There were eleven bull-boats in our party. Each couple, except I'dutsatsahic, or Scar, and his wife, Tsakákawiac, or Bird-woman had two boats. They had one boat. They were a young couple and thought a good deal more of having a good time than of taking home a big load of dried meat. Scar's wife's name was Tsakákawiac, or Bird-woman. She was my friend and a member of the Prairie Chicken band. Our boats proceeded in no particular order, any couple paddling ahead as they wished.

We had paddled about five miles down the river when we saw a large herd of buffaloes covering the shore on our right. "Let us get off and hunt some more," said the men of the party. We made our way to a small piece of woodland farther downstream where we landed in such a position that the trees hid us from the herd. The men of the party sprang out and held the bull-boats, while the women landed. There was a bar of clean sand about two feet higher than the level of the water, while just beyond rose the bank, probably about ten feet high. We landed on the sandbar, unloaded the boats, and drew them up on the bar. Then we carried the bundles and boats to the higher ground above the bank. Along the edge of the Missouri River are always found dead and dried willow sticks. We gathered some of these, carried them up the bank, and laid a floor of dried sticks on the prairie grass. We laid our bundles on these and turned our bull-boats over them, mouth down. Of course, I do not mean that the dry and dead willows were laid out in one big floor; I mean that each couple gathered these sticks and laid them out close together on the prairie, making a floor big enough to hold their baggage. This was to prevent it from touching the damp soil. The bull-boats were turned over the bundles to protect them from rain and mist. As soon as the boats and baggage were deposited on the upper bank, the men took their guns and stole away after the buffalo. We had landed a little before noon and, as we worked rapidly, the men were ready to start about noon.

The hunters advanced on the herd, sheltering themselves behind any rising ground they could find, while they picked out the fat cows they wanted to kill. Soon we heard the report of their guns; they killed five fat cows. While the hunters were stalking the herd, we remained quietly in camp and kept the dogs from making any outcry; but as soon as we heard the reports of the guns, we gathered sticks for a fire. I think the first of the hunters who returned, struck fire for us with his flint. We had but one fire in camp in the open air, for we had not pitched our tent. The women prepared a meal and after we had eaten, harnessed

the travois to the dogs and went to bring in the meat. My husband and I made two trips, if I remember correctly; some of the people made three trips. We built stages, cut the meat into thin slices, and built fires under the stages to dry the meat.

Before nightfall, we cut broom brushes, or buck brushes, and spread them on the ground for beds. Each couple prepared its own bed, choosing any convenient place not far from the campfire. We cut a great deal of dried grass with our knives and placed a pile of it at one end of each bed for a pillow. For our own bed, my husband and I spread a robe with the fur up and two robes to use as covers, which he laid fur down. These covering robes we laid over us with the head toward our feet and the tail toward our heads. When the men went to bed, they forsook the fire which sometimes went out; but very often we found coals in the ashes the next morning with which we built the fire up again. Although we slept in the open air, we followed our usual custom in disposing of our clothing for the night. The men took off their shirts, leggings, and moccasins, but the women removed only their moccasins and leggings.

Rescue of Awa-hítsi-kuvac. After breakfast the next morning I went down to the river with a tin pail for water. As I came to the edge of the higher bank overlooking the river, I saw that big chunks of ice nearly filled it. I was much surprised, for heretofore, the river had been quite free of ice. There was very little wind, but as the current was quite swift, the big ice cakes rubbing and grating together, and the noise of the water made a loud continuous roar. When the Missouri River is running ice all the mid current is filled, but near the banks where there are sandbars, or in the shallow water, there is no ice, since here the water is not deep enough to float the ice. On the side on which we were encamped was a shallow margin of this kind, free of ice. I now saw, out near the edge of the floating ice, two bull-boats, tied together as hunters tie them, with a woman alone in the foremost, paddling hard. She was just inside the edge of the floating masses of ice and was trying desperately to keep away from the threatening chunks. As the margin of the ice-free water was quite narrow, she was not very far from shore. I ran down to the sandbank and as the woman recognized me called out, "My daughter, catch me!" and held out her paddle. I caught it and drew her to the bank; she sprang out, catching her boat by the rim. I seized one boat and she grasped the second with her left hand, while with the right she caught up her bundles of dried meat and threw them out on the sandbar. This second bank, as I have said, was about two feet higher than the water and about six feet wide at this point.

The woman was Awa-hítsi-kuwac, or He-lies-on-a-red-hill. She was James Baker's grandmother and my friend. Awa-hítsi-kuwac was older than I and a married woman; her husband's name was Short-bull; her father was Kakúi-útsic, or Dried-squash.

The other women of our camp now came out and helped us carry my friend's bundles up to camp. This was easily done, for our camp was only about thirty yards away, for we had slept in the open without a tent.

"My husband and I," she said, "were hunting. After we had killed meat and dried it, we loaded these two boats and I went down the river with them while my husband went along the shore with our horses. We appointed a place to camp, but when I arrived there I did not find him."

When I returned to the village I found how all this had happened. Owing to the fact that the river began to run ice, or for some other reason, Awa-hítsi-kuwac was unable to make the speed she expected down the river and her husband arrived at the place appointed for a camp before she did. Short-bull waited for his wife and when she did not appear he thought she had passed him and gone ahead down the river. He went to the second camping place where they had agreed to meet, but again she did not come. Her husband became alarmed and made his way upstream again to search for her. He found the river filled with floating ice. "My wife is drowned," he thought, and went down the river to Like-a-fish-hook village to tell her father.

Kakúi-útsic was very fond of his daughter and when he heard that she was dead he took her basket, put it on his back, and went through the village, weeping and wailing. He wanted to jump into the Missouri River and drown himself, but the people held him back. Kakúi-útsic carried the basket out of memory for his daughter. I do not know what it was that he cried out when he went wailing through the village, but knowing Indian customs, I suspect that what he said was something like this: "Awa-hítsi-kuwac! ikúxpa áwakafwi-hii!" that is, "Awa-hítsi-kuwac, I will never see her again."

Awa-hítsi-kuwac remained with us in camp all that day and the next also. The third morning, the river was free of ice and she loaded her boats and paddled off. The rest of us remained in camp that day, but the next morning we also loaded our bull-boats and started down the river.

We had no serious mishap of any kind. At night we landed and made an open camp, not troubling to put up our tent. We spread dried willows on the ground. Each couple placed their bundles of meat on the willows and covered the pile with a bull-boat turned over it, mouth down.

These sticks were just the small dead willows sometimes with the bark on or sometimes fallen off. Enough of them were gathered to cover the ground well where the dried meat was to be piled for the night.

Twice in my life, as I recollect, I have been with a party that camped at this place where I am now living and which we now call Independence. Both times we unloaded our bundles of dried meat and piled them on the sandy shore near the river, each pile of meat with a bull-boat turned over it. The party climbed up the steep bank and camped for the night on the higher ground where grass grew. The place where we camped is now my son Goodbird's garden. The river, at that time, ran close to the steep bank, but there was a sandy shore with scattered small stones. The steep bank by the river was just as it is now.

As I have said, we floated down the river, but when we came to the place we now call Independence, we found a camp which four Mandan Indians were just forsaking. They were Foolish-head, Little-bull, Wooden-nose, and Enemy's-head. Little-bull's wife, Turtle-woman, the only woman in the camp, was also with him.

Their boats were all loaded, ready to embark. When we passed, they pushed out into the current and soon caught up with us. They told us they had seen Awa-hítsi-kuwac go by in her boat. The united party floated down the river until we reached a point about two miles below what is now Elbowoods. Here we found the current of the river was scarcely running and the water backing up the shore. When we rounded the point, we saw where the trouble lay. The ice floating down the river had jammed and had bridged the river from side to side, making a kind of dam. We heard the report of a gun and a voice called to us from the north shore. Two white men stood on the bank, waving handkerchiefs. We paddled across the river and landed where they stood. We found two white men, one of them named Spots, who had married an Arikara woman. The Indians called him Spots because his face was freckled. The second white man had married a Blackfoot woman named Flat-nose. These two white men each had a flat boat loaded with buffalo robes and dried skins. With the two white men was Awa-hítsi-kuwac or He-lies-on-a-red-hill.

Arrival at the Village. We landed here some time after noon. This place was about fifteen miles from Like-a-fish-hook village. While the rest of our party waited, one of our men went down to the village and notified our relatives, who returned with horses and pack saddles to transport our meat to the village. These pack saddles were made with horn frames. It took four horses to pack the baggage of myself and

husband to the village and about the same number for the baggage of each of the other couples of our original party. Our dogs transported the bull-boats on travois. The horses from the village reached us about noon the next day. The whole party arrived at Like-a-fish-hook village just at sunset. Awa-hítsi-kuwac reached the village safely to the great joy of her father.

A TRIBAL HUNT TO THE YELLOWSTONE IN AUTUMN.

Having presented a narrative illustrating dog culture, we may complete the picture by describing a hunting party using both horses and dogs. They set out in the autumn and the route was from the Hidatsa village to the Yellowstone River. It is inevitable that since both horses and dogs were used on the journey, some additional information is given concerning the handling of dogs and horses and there may be some duplication. Nevertheless, we have thought it best to give the whole narrative, as it appears to be the only narrative account of a tribal migration during the transition period from dog to horse culture.

The informant is again Buffalo-bird-woman, speaking in August, 1913. The time of the hunt was about the year 1869.

Choosing a Leader. The people at Like-a-fish-hook village had seen no buffalo herds for seven years, when word was brought to them that there were buffalo far up on the Missouri. "We will go and seek them," the hunters said. All the village, Hidatsa and Mandan, prepared for the hunt.

First, it was necessary to choose a leader; but this was not always easy, since our people expected that no misfortune would befall them while on the hunt. They did not wish anyone to die and wanted to obtain plenty of buffalo meat and be lucky in everything they undertook. If misfortune befell them, the leader would be blamed, of course.

The men of the Black Mouth Society,¹ collected a quantity of goods from the people and with this for payment, sought to hire a leader. They went from lodge to lodge in a body, four of their number carrying the great bundle of calicoes, blankets, war-bonnet, guns, and other gifts. They offered these gifts successively to several owners of medicine bundles, men whose prayers were known to be strong. One after another, they refused the leadership.

The Black Mouths came at last to Edi-ákatac, or Belly-up, and said to him, "We want you to be our leader." "I will be your leader," he answered, "but I want you to choose another to act with me." So the Black Mouths gave half the gifts to Small-horn, saying, "We want you to be leader also, for we wish to have two leaders for this hunt." Both men were Hidatsa. This is the only time I ever knew two leaders to be chosen for the same hunt. They led on alternate days.

It was the duty of the leaders to notify the people of the time for departure. Red-kettle, acting as herald, went through the village, cry-

¹See this series, vol. 11, 274-280.

ing, "Five days hence, we will set out on a hunt. Everybody get ready." This early notification gave the people plenty of time to bury their valuables in the cache pits. The evening before the start, Red-kettle, again went through the village, crying, "Tomorrow we move," and again in the morning, he went around, calling, "Take the tents down."

The two leaders paid the crier, I think, from the gifts that had been given them. I remember, once when my father was leader, he appointed Has-a-game-stick as crier, and paid him.

Goodbird adds:—

My father, Son-of-a-star, was once leader. He chose Belly-up as crier and paid him for his services.

Butterfly adds:—

I was on that journey. I was twenty-one years old then. I am now sixty-six.

Vehicles. We went forward in a long line over the prairie. The leader for the day went ahead and whoever was ready followed immediately after him, some on foot and some on horseback, while a few rode on horse travois.¹ Only a few of our horses had travois as I do not think this method of transportation was as popular among the Hidatsa as among other tribes from whom we learned its use. However, we had a good many horses; no family was without them. Some men had two, some three, and some as many as twenty. Big-cloud and Garter-snake-coat each had about eighty, I think. A man and a woman did not ride the same horse, though very often two children rode in that fashion, especially for a short distance. Saddle bags filled with baggage were carried by many of the horses while a man or a woman rode in the saddle. A medicine bundle might be carried in front of the saddle bound to the head. There were only two wagons in the village; they were owned by Black-hawk and Raise-heart, and were each drawn by two horses.

Order of March. We followed a single trail, sometimes two men or two women walked side by side, talking; sometimes they walked in single file. No one was allowed to precede the leader. If anyone in line stopped for any reason, to make repairs in his saddle, for instance, the

¹Brackenridge, *ibid.*, 177, writes of the Mandan:—

They sometimes go out on hunting parties by whole villages, as was the case at present. They appeared to be about 500 in number, some on horseback, the greater part on foot. A numerous train of dogs were employed in dragging their baggage, tent poles, etc.

The following extracts from Boller (*ibid.*) are also of interest in this connection.

"... We quickly fell in with the grand cavalcade of warriors, mounted and on foot; horses drawing loaded *travées*, upon which were sometimes tied two or three children, and as many puppies, clinging together with the most ludicrous tenacity.

Dogs also dragged their full share upon miniature *travées*, occasionally joining in a grand skirmish with their unemployed companions, usually resulting in the complete rout of the latter." (177.)

"Indian dogs, like their wolfish progenitors, are exceedingly cowardly, all bark and none bite; but the moment one is harnessed to his *travée*, conscious of the protection it affords him, he becomes very quarrelsome, and when a number get together they make 'the hair fly' to some purpose." (177-178.)

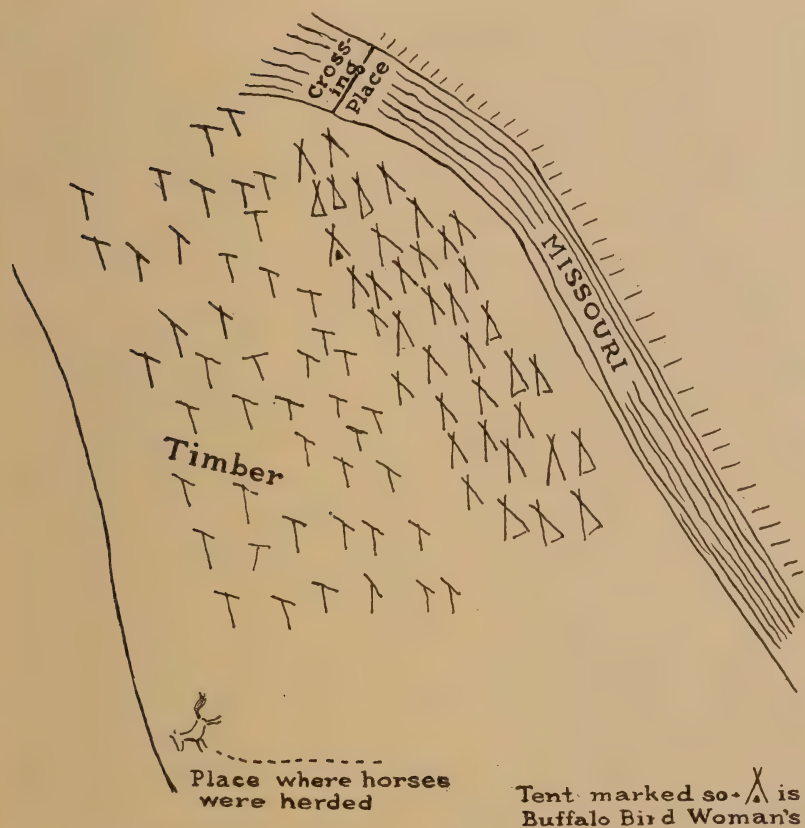


Fig. 87. Sketch Map of Camp on a Sandbar where Goodbird was born.

line passed around him and when ready he joined again, falling in at any convenient place. Families stayed together on the march. The younger men went ahead, scattering in the hills and in the timber to hunt deer and antelope, returning in the evening with any meat they had procured.

Goodbird adds:—

In the winter, in deep snows, hunters walked in single file and took turns in breaking a trail through the snow. Of course, we did not do this during this hunt as it did not take place in the winter.

Our first camp was near a lake about six miles from Like-a-fish-hook village. (I can only name the camps, but my son, Goodbird, can give you the distances in miles, fairly accurately.) Then we camped at a place called Narrow Hill, two miles up the river from Like-a-fish-hook Village.

We obtained our water from a creek about a mile north and also from a spring called Maháakúxabuác, or Noisy Spring, about a mile west of the camp. Our third camp was at a place called Good Point, thirty-five miles up the river from Fort Berthold, or Like-a-fish-hook Village. Our next five camps were at Shell Creek, eight miles from Good Point; at upper Knife River, fifteen miles from Shell Creek; at Crow Paunch Pit on the Banks of the Missouri; at Flint Steel Creek; and at Yellow Water Pond which was a particularly good camping place. Here we drank of the pond water.

Our next camp after this was near the mouth of the Yellowstone outside of Fort Buford, toward the river, where there were a great many soldiers. The soldiers came down to look at our camp and seemed to be very good people. Many of them gave coins to the children, five and ten cent pieces. We bought some flour here; before this, at other camps, we had eaten deer and antelope meat and corn. We camped here three nights. Then we moved five miles up the Missouri and camped again for three nights. We then moved two miles down the Missouri where we found a sandbar at a narrow place in the river where there was a good crossing.

Our Camp on the Sandbar. About noon, we camped on the sandbar. There were about one hundred buffalo skin tipis in the camp. When we camped in a good level place it was customary to pitch the tipis in a big circle, and if the wind was calm when we pitched camp all the tipi doors faced the center of the circle. However, if we were camped along a creek that had a narrow bank, or in any other place where a circle could not be easily formed, the tipis were set up in rows or whatever other arrangement the formation of the land compelled. If there was a stiff wind blowing a tipi was pitched with the door away from the wind.

A rude map of our camp on the sandbar is shown in Fig. 87. Because of the shape and narrowness of the sandbar it was impossible to have a camp circle so that our tipis stood as shown in the map.

Our horses were herded half a mile away on the other side of a stretch of timber that skirted the sandbar. During the day, the horses were guarded, but at night, they were hobbled and left to themselves. When the time came for a family to cross the river, their horses were brought in from the herd.

Turning a Tipi. Camped thus in a tipi, if a windstorm arose and it became necessary to turn the tipi with the door away from the wind, my husband and I and two or three neighbors, who were invited to help us, could very easily turn it around. Sometimes five persons and sometimes

seven or more turned the tipi; the larger number could handle it better, though if there were people enough to hold the foundation poles steadily that was sufficient.

First, the pins that held the cover to the ground on the outside were pulled up. Then, we went inside the tipi, picked up the four foundation poles and the one to which the cover was tied and moved the poles and

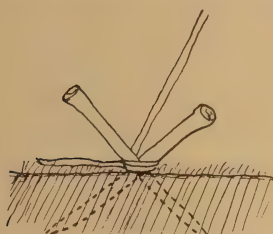


Fig. 88

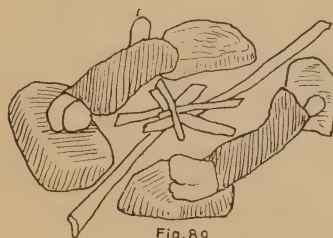


Fig. 89



Fig. 90

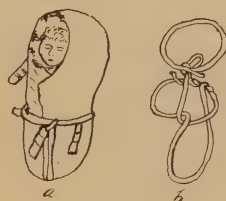


Fig. 91

Fig. 88. Method of Driving Stakes into the Ground to hold the Anchor Rope of a Tipi.

Fig. 89. Roasting Buffalo Thigh Bones before the Tipi Fire.

Fig. 90. Making Fire with a Wooden Drill.

Fig. 91. *a*, Goodbird's Wrapping, as a Baby, on the March; *b*, The Tie for the Thong binding the Baby Bundle.

the cover at the same time. The rest of the poles were now shifted about as was necessary. If the five poles were held firmly while they were moved about there was no danger that the tipi would fall down.

A Mandan tipi could be raised and turned by four persons since its foundation was of but three poles.

Anchoring the Tipi. During a windstorm it was often necessary to anchor the tipi to prevent it from being blown over. For this purpose a

rawhide lariat was passed around the poles, inside and under the tipi cover, and the ends were drawn together in a noose. The noose was pushed up by means of a forked stick to the point where the poles converged, and drawn taut. Then the loose end of the lariat was drawn downward and tied to a pin driven into the ground, four or five feet from the fireplace, toward the windward side of the tent. Very often two pins were driven into the ground and crossed as in Fig. 88. If the tipi were very large, it might be anchored with a second lariat on the outside.

In a Mandan tipi, a lariat always hung in the center in readiness for a storm. The Mandan three-pole tie was weaker than our Hidatsa four-pole tie and for that reason a lariat was passed around all the poles at the tie. In the Hidatsa tipis this was unnecessary, except in a heavy wind-storm, since our poles locked at the top.

The Fireplace. Our fireplace was in the center of the tipi on the level ground. Five or six stones were placed around the fire; upon these we roasted meat. We never used white stones, for they cracked with the heat. The stones were placed far enough apart so we could roast the thigh bone of a buffalo before the fire (Fig. 89). We cut the tough outer flesh from the thigh, leaving the more tender flesh still clinging to the bone, and this was laid near the fire, the two ends resting on two stones. When the meat was roasted and had been cut off, the bone was cracked open and the marrow pried out with a chokecherry stick and eaten with the meat.

We also roasted a cow udder on a stone before the fire, turning it over to roast it on both sides. We thought a roasted udder full of milk a great delicacy.

In my time, we carried metal kettles with us. I do not know whether our old-fashioned pottery vessels were ever taken on a journey; they were never so taken in my lifetime.

The Fire. The fireplace was surrounded by stones only when wood was scarce and buffalo chips were used for fuel, but when it was abundant the kettle was set directly on the coals and the meat roasted on wooden spits. When we camped on the prairie, however, we could obtain no wood, and made our fire of buffalo chips. In that case, we roasted our meat on stones (p. 235).

On this trip we used matches to start a fire, but on other trips my father, Small-ankle, started fire with flint and steel. He carried his fire-making implements at his belt over his right hip. These consisted of a sharp flint two and one-half inches in diameter and a semicircle made from an old steel file which was slipped like a ring over the fingers of the

right hand. He held the flint in his left hand and under it laid a little piece of dried puff ball that had been moistened slightly and rubbed on the surface with gunpowder. A spark struck off by the steel set fire to the puff ball. Sometimes he used very soft rotten wood instead of a puff ball.

In very old times, the Hidatsa produced fire with a wooden drill. Though I have never seen this done, I know from the old stories that the drill was held in the two palms and twirled back and forth. In Fig. 90 Goodbird has made a sketch of how I think this must have been done. I have heard they used cottonwood for the base and I think the drill must have been of hard wood, but I do not know certainly.

When the puff ball had caught fire it was placed in a little bunch of shredded dry grass which was then waved back and forth in the air to fan the flame. As I remember, Small-ankle did not strike the spark upon one whole puff ball, but carried in his fire bag a number of these powder-prepared bits of puff ball.

In our lodges in Like-a-fish-hook village, the fire was smothered at night. If it became extinguished by any accident, the woman went to a neighbor who had a fire and got some coals. We followed the same custom when in camp.

Use of the Heart Skin. When on a journey, we always carried a buffalo heart skin with us for fetching water. For use, the heart skin was turned wrong side out, exposing to the weather the smooth surface next to the heart. There was still another use for the heart skin. Unused roasted meat to be eaten as lunch on the road or meat that was to be carried to the next camp was very often carried in it (p. 159). The heart skin was a recognized lunch bag.

Goodbird's Birth. It was in November, as nearly as I can remember, that we made our camp on the sandbar.¹ We did not know the months of the year as accurately as white men do, but I remember that the moon was in the last quarter. I am not sure that when we say last quarter we mean just what the white people mean. What I mean is that the moon was a thin half circle shaped like a bow. We have three terms to express the waxing and waning of the moon: *midi-kakixits*, or "moon round," meaning a full moon; *midi-kidě'hits*, or "moon gets up," that is, raises itself or resurrects itself; and *midi-tehits*, or "moon dead."

It was known to everyone in the tipi that I was to give birth to a child; so everyone, but me, my father, Small-ankle, and Strikes-many-

¹According to the belief of the informant this was seven years before the Custer battle, or about 1869.

women went away from the tipi. My husband, Son-of-a-star, went to stay with his brother, Red-stone. My child was born a little before sunrise.

Son-of-a-star was in a tent nearby and heard the cry of the child. Later he told me, "I was very happy when I heard the cry of my babe." A piece of an old robe cut out for the purpose was put down on the floor and over it a cloth was laid; the baby was laid on top of this and bound up. On the outside, a soft calfskin was wrapped around him, or sometimes a wildcat skin, but this was done only on the march when there was danger that he would be chilled by the wind. Two wildcat skins and one calfskin were kept for the baby's use, to serve him as a robe does, for an outer dress. The calfskin and wildcat skin were arranged like a hood over the child's head and turned fur side in. A wildcat skin has soft warm fur and was a good wrapping to keep a child warm. Fig. 91*a* is a sketch of Goodbird's wrapping on the march. It will be noted that the wildcat skin is folded over his head like a hood. He is tied with only a single band. Fig. 91*b* shows the tie for the thong that bound the cradle bundle. After the fourth day, the cradle bundle¹ was bound with three ties.²

Corn Mortars. Some of the members of our hunting party brought with them the heavy wooden mortars and pestles they used when in the village. The majority of the families, however, contented themselves with carrying with them only the pestle and constructed a mortar of buffalo skin, cut square, as in Fig. 92*a*. The skin for this mortar was taken from the dried hip skin of a buffalo bull and pounded with an ax to remove the hair (Fig. 94). A saddle blanket, or saddle skin, was spread on the ground, and the skin laid on it, fur side up. Then the whole surface was pounded with a scraping motion and the hair removed. Later, it was rubbed with a stone to remove any stumps of hair remaining on the skin. This de-hairing process is still in use on this reservation. The skin square was then folded over and the lower corners trimmed as in Fig. 92*b*. Then it was sewed together at the edges to make the form shown in Fig. 92*c*. A hole was dug in the ground and in this the skin mortar was snugly fitted. In Fig. 92*c*, the mortar is shown in use; it will be noted that the pestle was used in the same way as in the wooden mortar. This type of skin mortar was used to pound parched corn and dried meat,

¹By cradle bundle, I mean the wrappings of a babe under a year old. The wooden cradle used by so many tribes, seems to have fallen into disuse among the Hidatsa, if indeed it ever was in common use by them. Such at least is Buffalo-bird-woman's opinion.—G. L. W.

²Buffalo-bird-woman's explanation here seems a little obscure. The drawing which Goodbird made and which was approved by her, is shown in Fig. 91*a*. There seems to be but one tie, instead of two, as shown in Fig. 91*b*. Whether this is an error, or whether Fig. 91*b* is counted as a three-tie binding such as was used after the fourth day, does not seem plain. I am inclined to think that the cradle bundle, Fig. 91*a*, should receive the two-tie thong shown in Fig. 91*b*, and that Goodbird in the former figure has either erred or else has not completed the tie because the smallness of the figure made it difficult to draw.—G. L. W.

especially meat that was partly toasted and dried over a fire. Such dried meat was pounded and mixed with bone grease for the old people whose teeth were well worn.

As I have said, the pestle was brought from Like-a-fish-hook Village. It was carried on a dog travois, resting with the smaller end forward and bound to the travois cushion while the larger end rested on the travois basket (Fig. 93).

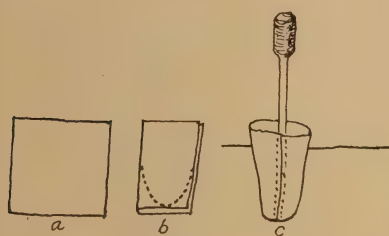


Fig. 92



Fig. 93



Fig. 94

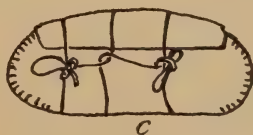
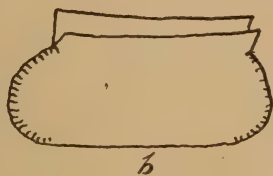


Fig. 95

Fig. 92. Construction of a Buffalo Skin Corn Mortar.

Fig. 93. How a Pestle was carried on a Dog Travois.

Fig. 94. Removing the Hair from a Buffalo Hide to make a Corn Mortar.

Fig. 95. Construction and Tie for a Buffalo Skin Bag.

Crossing the River. The morning after the birth of my son, the people began to cross the Missouri River. I do not know who went first, though I do not think it was necessarily the leader. In all probability it was some family whose boat was ready who led the way merely because they were the first to complete their preparations. I do not remember whether there was more than one boat in the river at a time, or not, though probably there was.

Our family crossed in Small-ankle's bull-boat which we had brought with us. My husband, Son-of-a-star, helped me in crossing, paddling, while I sat in the boat and held my baby. Usually, the women paddled

the bull-boat. Our tent poles, tied in a bundle, were fastened to one of the ribs of the boat, and floated behind. In addition, a horse travois and a dog travois were floated over in the same way.

Our horses were made to swim over. One of them was led by a halter, or bridle, made of a lariat, and our other horses followed of their own accord. In each bunch of horses, there was usually a leader, very often an old mare; it was the leader of the herd that was bridled while swimming over, and the rest followed.

We camped on the bank on the other side, which we found quite steep, much like the bank of the Missouri River at Independence. For a hasty meal, we parched corn and pounded it in a skin mortar.

We camped here three days, awaiting the crossing of the rest of the people. Our next camp was at Gun-hanging Hill where a son was born to an Hidatsa woman named Buffalo-woman. She named her child Many-birds. The next day we entered the Bad Lands. At our camp in the Bad Lands White-cherry gave birth to a babe. Our next camp after we left the Bad Lands was at Three-peak hill.

Pack Animals and Their Loads. On this trip our family had, for pack animals, two horses, two mules, and three dogs. Both horses were ponies, since big¹ horses were very scarce in the tribe at this time. Mules were also scarce and were valued because of their strength. The two mules and three dogs each dragged a travois; one of the ponies dragged six, and the other, eight tent poles, but no travois. Before I describe these seven animals and their packs, I will explain the construction of the bags we used for transporting our possessions. Skins that were to be made into bags had to be prepared carefully. A tent skin was of no value for a packing bag.

The first type of bag was of unsmoked buffalo skin with the hair removed, dressed and oiled with buffalo brains and liver (Fig. 95). Fig. 95a presents the folded skin, ready for sewing; Fig. 95b, the completed bag with the two flaps for the mouth; Fig. 95c is the sack, filled and tied. In folding the two flaps at the mouth of this bag, both were turned over to one side and one flap was not turned into the inside of the bag. The bag was tied with a thong in three ties. It was about 2½ feet long and about 15 inches in diameter. For this journey we filled it with ripe corn on the ear and dried squash. We did not use this type of bag for shelled corn. We believe that this form is peculiar to the Indians of this Reservation.

¹By "big" horses Buffalo-bird-woman means American horses as distinguished from the small Indian pony.

The second form of bag is the one used for shelled corn (Fig. 96). These were made in pairs like saddle bags and were united by a band in the middle about fifteen inches long. Each of the two bags was about fifteen inches wide at the bottom and tapered somewhat to the top. In Fig. 96A is shown the folded skin; the bag roughly cut and sewed is seen in Fig. 96B while Fig. 96C presents the completed bag. For a short journey, the bags were filled and tied at the mouth (Fig. 96D); but if this type of bag was to be carried on a long journey, the mouths of the two bags were sewed. They held shelled corn and were thrown over the horse's saddle like saddle bags.

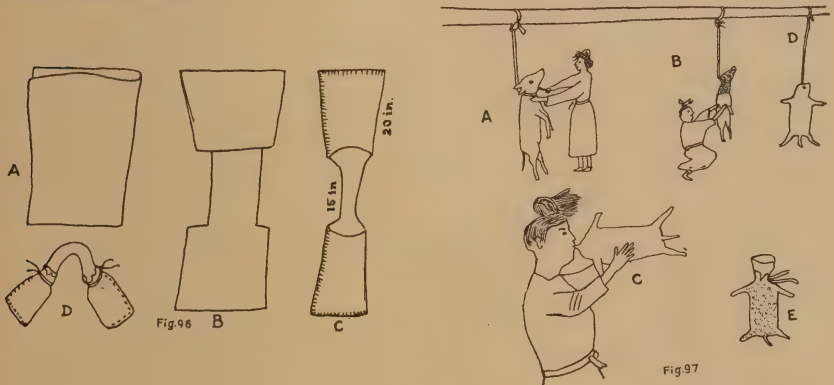


Fig. 96. Construction of a Double Bag used for Shelled Corn.

Fig. 97. Making a Buffalo Calfskin Bag; A, B, skinning; C, inflating; D, drying; E, the completed bag.

The third form was a calfskin sack. The following description applies to the one we carried with us on this hunt.

About midwinter, or the February before we set out on this hunt, Small-ankle brought in a calf whose hair had just begun to grow. Strikes-many-women hung the calf to the drying pole by the neck. With a knife she made an incision quite around the neck just behind the ears and drew the skin backwards and downward, working with her knife and fingers. It was always hard to pull the skin over the shoulders of the carcass without cutting it; but this done, the rest of the work was easy. The leg skins were encircled with a knife just above the hoofs and taken off whole (Figs. 97A and B). Then the four legs were sewed up with sinew thread. The vent was skewered with a small stick woven in and out of the lips, and bound shut with sinew passed just under the stick as in the case of the vent in a bull-boat skin (p. 285). The tail was skinned entire, without

breaking or cutting it; the neck too was sewed up, excepting a very small aperture left to blow in. The skin thus sewed was green and turned with the fur inside.

Strikes-many-women took the skin and blowing through the little hole she had left in it, filled it with air (Fig. 97*c*). Then she caught the lips of the aperture between her thumb and finger, and holding them tight, sewed them up with sinew. To one of the ends of the sewing sinew used to close the neck, she bound the end of a rawhide lariat and hung the skin on the drying pole of the earth-lodge (Fig. 97*d*). When the skin had dried, it was taken down, and the sinew threads of the neck seam cut. The air was expelled and the skin worked with the hands to soften it. Finally, since a buffalo calf neck is quite narrow, it was split down one side level with the shoulder and a mouth of old tent skin, shaped somewhat like a funnel, sewed into it. Then a buckskin thong was sewed on one side of the neck to be used in tying it. Strikes-many-women was very skilful at making bags like these. I can remember six of these bags that she made.

When the skin was softened and ready to receive the corn, it was turned fur side out again. It will be noted that the mouth of the bag shown in Fig. 97*e* was sewed into the bag after it was turned fur out.

The First Mule. All our mules were called A'pi'tía or Big-ears. The two mules we took with us on the tribal hunt were called, A'p-i'tía akú-mikác, mule of lower or less stature; and A'p-i'-tia aku-i'tíac, or Big-mule. The smaller of the two mules was loaded as follows:—

The first morning we saddled the mule. Over the saddle, we threw a double bag filled with shelled ripe soft white corn (atáki, soft). The bag was similar to the one described in Fig. 96. On each side of the saddle was a parfleche filled with strings of dried squash and soft white corn on the ear. Parfleche bags were the shape of an envelope, eighteen inches wide and thirty inches long. It took one whole side of a buffalo cowhide to make a parfleche. Topping the mule's load, was a calfskin sack, like that described in Fig. 97, filled with dried half-boiled green corn, of the soft white variety. Over this was laid a tanned buffalo bull skin folded into a rectangle, hair side in, to prevent the travois thong from wearing out the calfskin bag. This robe was also used during the night for a sleeping robe. All these packs were bound down upon the back of the mule and made taut. Finally, the travois, its thong lying across the bull skin robe, was flung over the saddle. The travois itself had tied to it a hoe and an ax (Fig. 98) with a bull-boat bound mouth down over them. The blades of the hoe and the ax were thrust into a sack like that

shown in Fig. 95 and the bundle was lashed at the head end to the upper rim of the travois basket. No lashing was attached to the handle of either the ax or hoe. Sometimes these tools were lashed to the basket without thrusting the blades into a sack, in which case they were bound on so that the sharp edges of the blades hung over the upper rim, toward the ground.

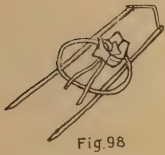


Fig. 98

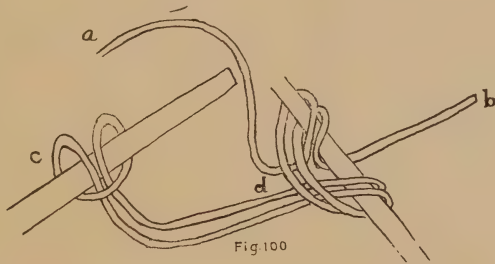


Fig. 100

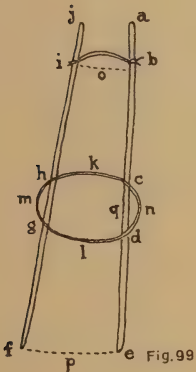


Fig. 99

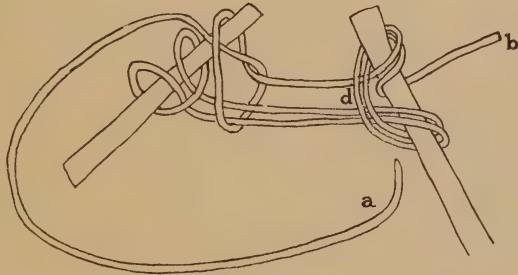


Fig. 101

Fig. 98. Travois with Bull-Boat, Hoe, and Ax tied to It. (The bull-boat and travois basket lacings are not drawn.)

Fig. 99. Diagram of Horse Travois. The following measurements were carefully worked out by Buffalo-bird-woman and apply to the lettered parts as designated: a-b, 8 inches; b-i, 22 inches; o-k, 5 feet 3 inches; a-e, 13 feet 3 inches; e-f, 4 feet 3 inches; l-p, 4 feet 6 inches; a-c, 6 feet 6 inches; c-d, 1 foot 17 inches; d-e, 5 feet 5 inches; n-q, 4 inches; k-l, 2 feet 9 inches; m-n, 3 feet 10 inches.

Fig. 100. Travois Thong Tie.

Fig. 101. Travois Thong Tie as made when Speed was desired.

The Travois. In Fig. 99 is shown a diagram of a horse travois. Though the description applies specifically to travois used on mules, the size of every horse travois was about the same. The measurements will be given in English denominations, for I will lay these two long poles on the floor and coil this piece of rope around in the size and shape of the travois basket and from these you may take the measurements. If

you read the inches right, as I help you with this yard stick, I am sure there can be no mistake.

The travois frame was of ash. The ends of the basket hoop were always lashed together so as to place the joint at *k* or *l*, as in the diagram (Fig. 99) but never at *m* or *n*. The ash pole for the hoop should be twelve feet long, allowing one and one half feet to make the joint nine inches long. Of course, since the two ends of the hoop overlapped to make the joint the latter would be just one half the extra eighteen inches allowed. The basket was bound to the travois poles at *c*, *d*, *g*, and *h* (Fig. 99). About eight inches from the smaller end of the travois poles was a groove to receive the thong by which the travois was slung over the saddle. The travois thong tie is shown in Figs. 100 and 101. The nooses, Fig. 100*c*, *d* are each slipped into the groove on the travois pole. These grooves are not marked in the figure. The end, Fig. 100*a*, is now carried back to the left pole around it and the noose (Fig. 100*c*) with a simple knot as shown in Fig. 101. If speed is required, the end, Fig. 101*a*, is carried under the horse's belly and tied to the right hand pole just under the right hand noose (Figs. 100*d*, 101*d*). The end (Figs. 100*b* and 101*b*), is allowed to hang free.

If a long journey is contemplated, the end (Fig. 100*a* and 101*a*) is first knotted to the binding cord of the left side of the pack, if one is carried, and then passed under the horse's belly and tied, as before, to the right hand travois pole, while the end (Figs. 100*b* and 101*b*) is knotted to the cord on the right side of the pack.

The Bull-Boat. Over the travois carried by this mule was lashed a bull-boat made fast by thongs that passed around the boat and bound it down in four places on the travois poles (Fig. 102). Each of these thongs also passed under the rim of the boat and under one of its ribs and was then tied to the travois pole. This further secured the boat and made it fast. In lashing a bull-boat to a travois it was customary to turn the travois upside down, lash the boat at the corners, and reverse. The paddle was bound on at the top as shown in Fig. 102.

When I made a cowskin bull-boat, I measured the upper hoop from my eyebrows to the ground. The bull-boat I am describing had an almost perfectly round frame, but I remember the old time frame had a slightly more acute angle in front (Fig. 103).

The mule whose load I have described was either driven or led. If the road was good, the animal was driven, but if we were passing through a coulée, on the side of a hill, or through timber, the mule was led. He was a castrated male, as was also the other one we took with us. I never knew a mule to give birth to a colt.

We bought this mule from the Sioux. One of the Sioux said, "Any-one who gives me a horse and some corn may have this mule. I do not care what kind of a horse it is, if I get some corn with it." I heard what this Dakota said and I and my husband went to see him, for he was then visiting our village. We gave them a pony, a gelding that was lazy, and four strings of soft white corn, one half bushel of boiled green corn, and about fifteen pounds of beans. I wanted this mule because one can pack so much more on a mule than on a pony. This mule was my own property.

The Second Mule. The larger mule that we called Big-mule was a dark bay, a gelding, like the smaller mule in color. It belonged to Strikes-many-women, though at first Red-white-buffalo owned it. He gave it to

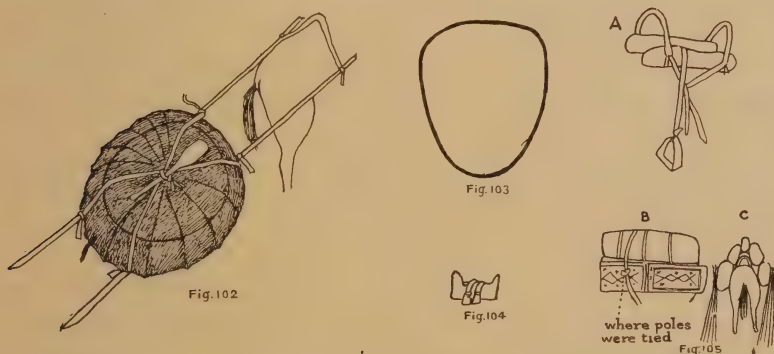


Fig. 102. Method of lashing Bull-Boat to a Horse Travois.

Fig. 103. Form of Old Type of Bull-Boat.

Fig. 104. A Saddle with Two Double Bags filled with Provisions hung on It.

Fig. 105. Arrangement of Bags and Tent Poles for Transportation.

his daughter, Otter or Midapókēc, Wolf-chief's wife, who in turn gave it to Strikes-many-women. Otter loaded the mule. She put on her saddle, then two double bags (Fig. 96), one filled with sugar and one with coffee (Fig. 104). On either side she placed a bag similar to that shown in Fig. 95. The bags, sugar, and coffee she brought from her parents. All these were lashed down upon the animal in the usual way. Over the whole was placed a travois on which was a bag similar to Fig. 95 which probably contained skins for moccasins, sewing thread, etc., two pillows, three half hide robes, and one half skin. These were all folded and tied to the basket hoop with a lariat drawn back and forth over the back. The pillows were all of cloth, stuffed with antelope hair or geese, duck, or prairie-chicken feathers. We never used eagle feathers for stuffing pillows as these birds were sacred.

The Ponies. We took two ponies for pack animals, one carried eight and one ten¹ tent poles.

The Eight-Pole Pony, Lashing Tent Poles. On either side of the saddle (Fig. 105A) this pony carried one parfleche and one skin bag similar to the one shown in Fig. 95. Fig. 105C gives a rear view of the bags, while a fifth bag which was very commonly placed in this position is shown on top. The round appearance of the lower sack (Fig. 105C) is due to the fact that it was full. A parfleche was considered better for the lower part of the pack as it was smooth and did not stay on the top of the animal's back very well. The lower package was called *itaki it-ä'kidätsë*, pack on side. The upper package on either side was called *itaki itakákà* (pack on top). In loading a pony as this one was loaded, the upper packages were often omitted and the pony ridden by some old man or old woman too feeble to walk, or by one or two small children. In that case, a robe was thrown over the parfleche and the saddle to give a comfortable seat to the rider. A woman rode in the same fashion as a man.

In Fig. 105C will be noted the poles dragged by the pony, as one half of them are lashed on either side of his back. The Assiniboin and the Sioux lashed their poles to the pony's back in a manner different from our method. Some tribes even crossed the poles over the pony's back. The Hidatsa invariably tied their poles as shown in Fig. 105C. Holes were pierced in the smaller ends of the poles, a thong drawn through, and the ends of the thong tied together, thus binding the poles in a loose ring. The poles were then lashed on either side of the pony, as I have described (p. 193).

The name of this pony was *Xaxi-tsi-ac*, or Gray-mottled. He was a gelding.

Tying up a Tipi Cover. The pony carrying the six poles also carried the tent skin. When the tent was struck, the cover was untied from the rear pole and laid on the ground, weather side up (Fig. 106A). Then it was folded over once, weather side in (Fig. 106B) and the smoke hole end was folded once over (Fig. 106C). Each end of the package was successively folded over twice (Fig. 106D); the result is shown in Fig. 106E). Now the two sides, *a* and *b*, are folded together and each end is folded twice toward the center (Fig. 107F). A lariat is then passed around three times and tied (Fig. 107G) and the tent swung to the horse's back. Then the free end of the lariat (Fig. 107G, E) was carried under the horse's

¹Probably an error in translating. She speaks later of six poles being carried by the second pony.—G. L. W.

belly and tied on the horse as shown in Fig. 108A. As has already been said, each of the tent poles had a hole at the smaller end through which a thong was drawn. The larger ends of the poles dragged loosely on the ground, spread fan shape. Sometimes one of these tent poles broke where it was pierced for drawing through the thong. In that case, a slight groove was cut into the pole as a substitute. This, of course, was done only in an emergency, the ordinary method was to perforate the end of the tent pole.

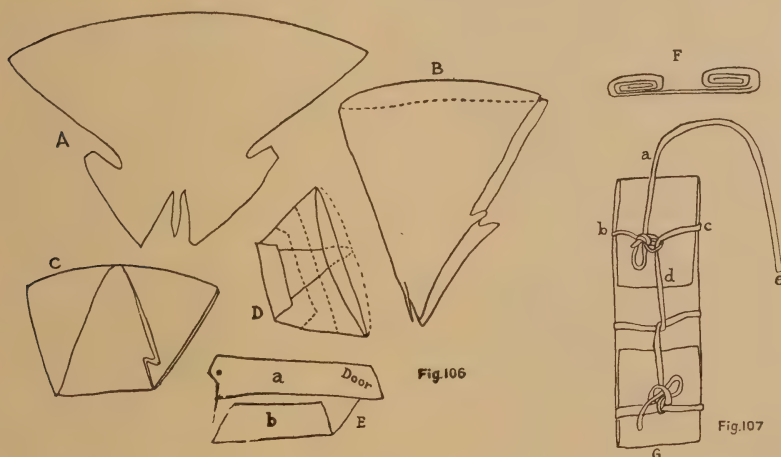


Fig. 106. Method of Folding a Tent Cover in Preparation for Loading.

Fig. 107. A Tent Cover tied ready for Loading.

As the tent cover lay on the horse, it made a load on either side of the animal, twelve inches thick, twenty-six inches long, and twenty-four inches wide, while the connecting portion that passed over the saddle was about eighteen inches long. The tie for the upper part of the package, Fig. 107G, is shown in larger outline in Fig. 108B.

When a pony carried a tent cover, no boy or older person ever rode it.

This pony's name was Pě'pě's, meaning shaggy. She was a gray mare with a shaggy coat.

Other Horses, Saddle, Stirrup, and Method of Riding. Besides the two mules, and two ponies, we had four additional horses with us. I rode a black pony named *Cípíac*, or Blackie, a speedy horse that carried a flat saddle stuffed with antelope hair. The stirrups were of wood, covered with skin, and sewed. I made both the saddle and the stirrups.

The saddles we used for racing¹ and for pursuing buffalo were all of this flat type.

I had neither travois nor pack on this horse. Very often, my husband went ahead to hunt; if he did not intend to go far away, he went afoot; but if he wished to go some distance away he rode this horse, while

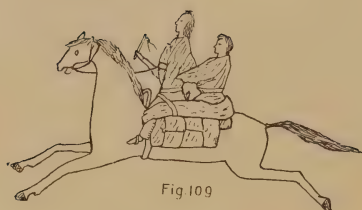
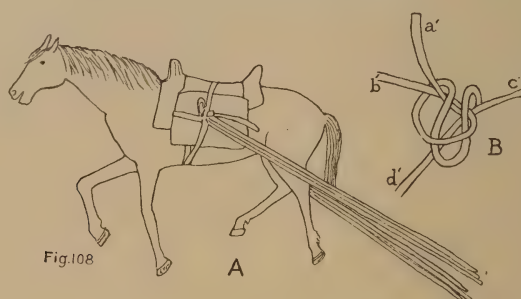


Fig. 108. Method of Loading and Tying Tent Cover on a Horse.

Fig. 109. Sketch of Horse and Two Riders to show Robe tied over Legs of Two Boys, in Winter.

Fig. 110. Sketch of Horse and Two Riders to show Position of Riders in Summer.

I stayed in line and walked. Sometimes, while still following the line, we took turns in riding and walking. It was the man's business to go ahead and hunt deer or antelope when on the march.

While riding this horse, I sometimes led and sometimes drove my mule, caring for it even when Son-of-a-star, my husband, rode the horse.

My father, Small-ankle, went ahead and I followed.

Wolf-chief's wife, Otter, rode a black pony with white legs and face. He was a gelding used in races and for buffalo hunting called Ita-takic, or White-face. Otter also had a flat saddle and carried no burdens; and

¹For a good description of an Hidatsa horse race, see Boller, *ibid.*, 66-67.

she took turns with Wolf-chief in riding. Like my husband, Wolf-chief preceded the march from time to time to hunt.

My two younger brothers, Red-kettle, ten years old, and Full-house,¹ seven years old, rode a three-year old blue² pony that carried a deer horn saddle and on either side bags filled with dried meat, like that shown in Fig. 95.

As the hunters brought in meat at each camp, we cured it and added to our store in preparation for the next winter. At every camp we ate some of the food we had brought with us and so emptied the bags and parfleches ready to be filled with the freshly dried meat.

A robe under Full-house was brought forward and tied by a thong over the legs of both boys (Fig. 109). Fig. 110 presents the way in which the two boys would have ridden in the summer time. In both figures it will be noted that the bags are beneath on either side. This custom of binding a robe about one in the winter time as is shown in Fig. 109 was often followed by a single rider as well as by two persons riding a pony. We called this pony, Dóic.

My two mothers, Red-blossom and Strikes-many-women, had one horse which they took turns in riding. I have forgotten what color it was and whether it was a mare or a gelding. However, it was a two-year old and we always called such a horse Itawádä-nupac, or Two-year-old. My father, Small-ankle, who died in 1888, being a hardy walker, rarely rode this horse. When he did so, it was on the march for he never rode ahead to hunt as did my husband and Wolf-chief. At the time of this hunting trip which I think took place in 1869, Small-ankle was fifty-nine years old.

This horse, Itawádä-nupac, carried one long double sack (Fig. 96), one side filled with beans, and the other with shelled ripe yellow corn. We used yellow corn for boiling with beans.

Dogs and Packs. We had three dogs that dragged travois.

The First Dog. My own dog was a castrated male, Ūxi-tic, or Bob-tail. He was black and stood about twenty-two inches high, measuring from the ground to the level of his back just back of the shoulders.

Dog Travois. The travois he bore was similar to the one shown in Fig. 111. The right hand pole (Fig. 111*a-b*) lay uppermost in every dog travois; in other words, wherever the two poles made a joint, the right hand pole lay upon the left hand pole. The buffalo hide cushion which

¹Goodbird says that the Hidatsa words for "Full-heart" and "Full-house" are nearly or quite the same. He did not learn until a year or two after the time of this dictation that the name should be translated Full-house and refers to the hospitality of a man who has always a "full house" of guests.—G. L. W.

²She seems to mean iron gray.—G. L. W.

rested on the dog's back was put on fur side out (Fig. 112A). It was sewed with thong in such a way as to give a smooth seamless surface underneath. (See cross-section, Fig. 112B). In Fig. 112A are two loops made of small strips of dressed skin, sewed, one longitudinally and the other transversely, on the cushion (Fig. 112, A, *b*, *c*). The loop or thong Fig. 112A, *c*, is the larger of the two. The use of these two loops is shown in Fig. 111; to the smaller is tied a short soft thong which is fastened to the breast band (Fig. 111*e*) to either end of which is tied a longer thong which passes under the larger loop (Fig. 112A, *c*). This longer thong or

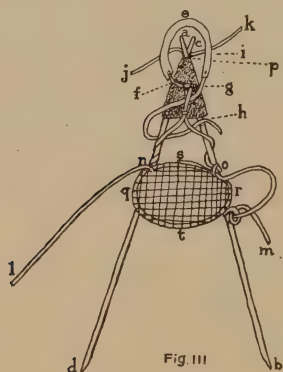


Fig. 111

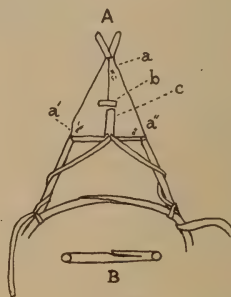


Fig. 112



Fig. 113

Fig. 111. A Dog Travois. The following measurements of the parts of a dog travois apply in each case to the distance between designated letters: *a-b*, 8 feet 5 inches; *a-p* (length of stump), 3 inches; *p-i* (length of cushion), 19 inches; *q-r* (width of basket), 2 feet 1 inch; *s-t*, 18 inches; *b-d*, 3 feet 9 inches; length of thong *k* (one half of neck collar), 18 inches; *l-n*, 5 feet 6 inches.

Fig. 112. Cross-section of Construction of Pad on Dog Travois.

Fig. 113. Position of Straps, Breast Band, etc., when Travois is not in Use.

strap passes around the left pole under the dog's belly and was finally tied to the right hand pole at *h*. (Fig. 111*h*.) The loop, Fig. 112A, *c*, was about three and one half inches long.

Turning now to Fig. 112A, *a*, *a'*, and *a''*, it will be noted that three thongs pass through both layers of the cushion and fasten it down: Fig. 112A, *b* is a loop already described, sewed on by passing the ends down through the cushion and making them fast on the under side. It is to this loop that the breast band is tied by a short thong (Fig. 111*f*). The longer thong (Fig. 111*g*) passes through the loop *c* (Fig. 112A), three and one-half inches long. Fig. 112B is a cross-section of the cushion, showing the method of folding the piece of buffalo skin with the seam at the top. This, of course, was so that the lower surface would be smooth and not fret the dog's back.

In Fig. 111*j* and *k* are shown the two thongs that descend and are tied around the dog's neck for a collar to hold the travois in place. This neck collar must not be confused with the breast band (Fig. 111*e*).

Fig. 112*A* shows two thongs which descend toward the basket from the lower edge of the cushion. These (Fig. 111*l* and *m*), are really but one strap tied at the middle to the loop *c* of Fig. 112*A*, the same loop through which the thong passes forming the dog's belly band. Each end, *l* and *m* respectively, is wrapped once, spirally, around its pole and bound down at *n* and *o*, respectively, to the pole and the basket hoop. The free ends, *l* and *m*, in Fig. 111 now become the straps that bind the load on the basket. These binding straps and the neck collar were never taken from the frame of the travois. When it was not in use, the pack straps *l* and *m* could be tied loosely to the neck collar, the breast band thrust under them, and the travois stood up on end (Fig. 113).

The dog travois basket was woven exactly like the wheel for the hoop game, but that for a horse travois was quite different (p. 276).

The two poles of a dog travois had very short stumps above the joint where they crossed on the neck of the dog. When a dog was harnessed, the stumps of these poles should not touch his ears or the back of his head (Fig. 116).

The Mandan dog travois and harness were exactly like those of our tribe, as was also the Mandan horse travois. The packing straps (Fig. 111*l*, *m*) were absent on a horse travois. The measurements of a dog travois will be found under Fig. 111.

Dog Travois Loads. The travois of my dog, Bob-tail, was loaded with moccasins and material for mending them. I had twelve pairs of moccasins, for myself and my husband, some old, some new, in a bag like that shown in Fig. 95. I also put in the bag a piece of buffalo skin about two and a half feet square with the hair on, for winter moccasins; a good-sized piece of tent skin; an elkhorn scraper; a child's cloth blanket; a round, flat stone, two and one half inches in diameter, for sharpening the scraper; a child's robe made of a piece of buffalo skin; a buffalo shoulder bone, a porous piece (Fig. 114) used in dressing hides; an iron awl; a butcher knife wrapped in a piece of skin; and a bunch of sewing sinew, as big as my two palms, containing all sorts of sinew, of buffalo, elk, antelope, and deer. At *x* (Fig. 114*B*) is shown the place where the bone is cut out. I do not know why we wrapped up a knife when we packed it up to carry it on a journey, but we always did; probably because it was



Fig. 114. Buffalo Shoulder Bone used in Skin Dressing; x, portion of the bone cut out.

sharp and might cut through the bag. Finally, the bag was tied up and covered with half a buffalo skin which we used at night for a bed cover. This was spread over it, fur down, and bound down to the baskets with the travois pack straps.

Two of the women in the party carried knives in their belts. Though I did not follow this custom on this journey I often did on other occasions. I used to hunt with my husband twice a year, once in summer and sometimes in winter, and on such occasions I carried my knife in my belt.

Of the other two dogs, one was named *Maxíte-kikeic*,¹ from *Maxi'ite*, a feather cap worn by the dog imitators' society and *kikei*, worn or wearing, or thing placed upon. (This cap was covered with magpie feathers to each of which was attached a weasel tail.) The dog's name may therefore be translated, Wears-feather-cap. Wears-feather-cap was a large black and white spotted dog. Small-ankle thus named him because he once killed a Sioux who wore that kind of a feather cap. This dog, a castrated male, belonged to Strikes-many-women and Red-blossom, my mothers.

The second, also a castrated male, was a large white dog with big yellow spots and also belonged to Strikes-many-women and Red-blossom. He was named *Itá-cuka-akaic*, or Took-away-his-horse.

Strikes-many-women's native name was *Mía-ahú-nikíc*; that of Red-blossom, *Óðakapaki-hicic*, Blossom-red.

As I did not pack the travois of these two dogs, I do not know just what they carried, but I feel sure that they too carried supplies for making moccasins. I remember that a stone hammer and a round stone were part of one load. These were used for pounding dry meat, for cracking bones for making bone grease, and for pounding corn into meal. A hide was spread under the stone to catch the meal. One of the dogs carried the wooden pestle belonging to the corn mortar and a skin mortar like that shown in Fig. 92c. Some wooden bowls, tin dishes, a few horn spoons, and a brass kettle formed part of the loads. This brass kettle had a mouth about twenty inches wide and was high enough to reach to my knee. I used to boil it full of bones three times to obtain bone grease enough to fill one bladder.

The Arikara borrowed this kettle whenever the Buffalo Imitators' society or the Black-tailed Deer imitators wanted to boil water and paint their legs red; when the water was hot they leaped in, danced a few times, and then jumped out again. This kettle was originally obtained from the Arikara.

In loading this kettle on the travois, a wooden bowl was placed inside it and then an old tent skin was wrapped around it and tied. The travois on which the kettle was carried was covered with a robe which was used as a bed covering at night. The travois dragged by the second dog was covered with an old brown tent skin.

Bull-boats. Fig. 117 is a diagram, drawn from a model, of a bull-boat¹ lying mouth down over a dog travois basket. The following measurements were taken from the model, which consisted of two long poles to represent the travois frame and two ropes coiled in circles upon the poles, one representing the travois basket, the other, the edge of the up-turned bull-boat:—

- a-f 8 inches
- b-e 6 inches
- d-g 6 inches
- a-c 4 feet 9 inches

I think these measurements are approximately accurate and I have given them so that no mistake may be made in any diagram or model which you make of a bull-boat being carried on a dog travois.

How Bull-boats were borne on the March. I have said that we crossed the Missouri in bull-boats. These we carried with us, either on horse or dog travois. A dog could very readily carry a bull-boat made of buffalo cow skin, but a bull skin boat was too heavy for a dog. On a dog travois, a bull-boat was always bound mouth down, but on a horse travois, the boat might be lashed on either way. Very often it was bound on mouth up and kettles or pots were thrown into it; or else children, though never old people, rode in it. On a horse travois the bull-boat was bound either to the basket or to two cross bars. If the boat was to be carried mouth up, a blanket or robe was laid over the basket or cross bars, to prevent the skin from wearing; otherwise no blanket was necessary.

¹In 1910 Goodbird stated that, "The skin of a buffalo that was to make a bull-boat cover included the tail. An ox's tail is cut off. But in old times the buffalo's tail, being longer, was left intact, at least, that is as I understand it. A stick is thrust into the tail and when it dries the tail is held rigid. The stick is bound to one of the ribs in the boat. The tail is put in such a position that when paddling the boat the tail is always behind.

In paddling a bull boat the paddler kneels in the boat and puts his paddle in the water directly in front. He always kneels so that the three bottom ribs of the boat will not lie athwart the course taken; and, as I have said, with the tail in the rear of the boat."

In 1911 he stated that, "A bull-boat ought to be made as flat-bottomed as possible. This bull-boat is not very good for it is rather round bottomed. Such a boat is easily tipped. In old times the bull-boat was rather a woman's craft, though the men used it also. Often a war party would float in a bull-boat by night, down into the enemy's country, steal horses and ride back, abandoning the boat. The hide should always be hair out. Hide should be put on green from the animal. If there is a leak, thrust a little twig through the hole and plaster on inside with sticky mud. If the leak is small, the twig plug is omitted."

It was an ordinary occurrence for us to take a bull-boat¹ when traveling along the Missouri, so that we had some means of crossing; even hunters did this. Fig. 118 is a drawing of a bull-boat on a horse travois, made by Goodbird under my direction. It will be noted that the horse

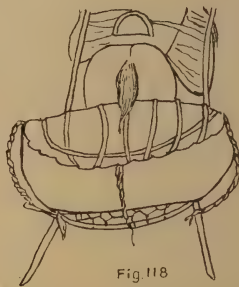
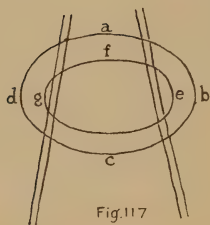
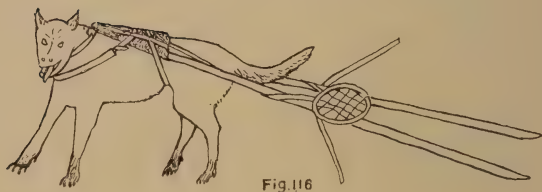
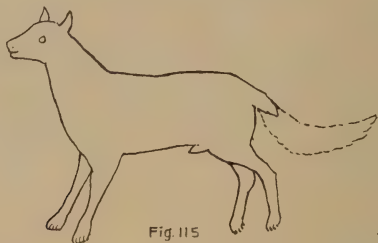


Fig. 115. The Hidatsa Dog: Two Kinds of Tail are shown, Stumpy and Bushy.

Fig. 116. Travois Harness properly adjusted on a Dog.

Fig. 117. Diagram of a Bull-Boat lying Mouth down over the Travois Pole.

Fig. 118. Method of Fastening a Bull-Boat to a Horse Travois.

carries a load on either side of the saddle. The boat was tied to the travois by passing a thong or rope between the end of one of the ribs of the boats and the skin cover and thence down to the travois basket be-

¹A good account of the bull-boat is given by Boller, *ibid.*, 75-77. "The squaws, inverting the bull-boats over their heads, carry them to a point above the village, and then set out on their return, reaching the shore considerably below the starting-place. The woman with their boats over their heads resemble huge black beetles crawling along the sand-bar." (Boller, *ibid.*, 77.)

For the methods of carrying bull-boats, see the sketch by Kurz, *ibid.*, 39; also, "Nach dem Frühstück war das Ufer sehr belebt; Jäger und Pferde wurden von squaws in Booten aus ungegerbter Büfelfhaut über den Fluss gerudert." (Kurz, *ibid.*, 36.)

neath. It was tied in four places, before, behind, to the right and left (Fig. 117).

While it may seem strange that it was possible for a dog to drag a bull-boat on a travois for such a distance, it was not so severe a task as might appear. In old times, our packing dogs were about the size of a timber wolf. Our old dogs looked a good deal like wolves; though they had much broader faces and had strong, firm legs. The tail was usually bushy but was sometimes quite short or nearly wanting. In Fig. 115 Goodbird has drawn a picture of one of our dogs. He has drawn the tail in the two ways I have described; one is bushy and the other is short and stumpy. Most of our dogs had bushy tails, but others were common.

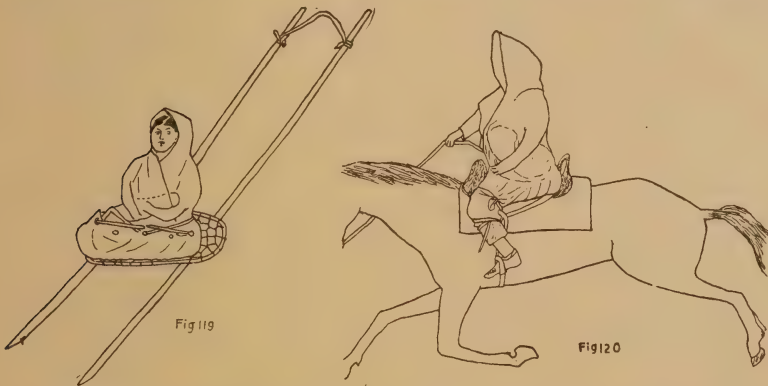


Fig. 119. Buffalo-bird-woman riding on a Travois with Feet to the Right, and holding Her Baby on Her Left Arm.

Fig. 120. Buffalo-bird-woman riding a Horse with Her Baby tucked inside her Belted Robe.

By Travois and Horseback with my Babe. As the weather was quite chill it was necessary to take good care of my child on the march. After the birth of my son, I sometimes rode on horseback and sometimes on the travois. On horseback, I wore a belt outside my robe and thrust my babe within, on my left side, with his feet downward (Fig. 120). If I rode on the travois, I sat as on the floor of our lodge, with my feet to the right and my child on my left arm (Fig. 119). It will be observed (Fig. 119) that the robe is wrapped about me, but I wear no belt. In his drawing Goodbird has perhaps given the robe too much the appearance of a blanket.

If an Indian woman is right-handed, she sits on the ground with her feet turned to the right; for this reason she carries her child on the left side.

In Fig. 120 it will be noted that a thong passes around my knee. When I mounted the horse, my husband drew down my skirt and robe and tucked them under to my knee. When all was adjusted, he bound them over my knees so the cold wind could not ascend and chill my body.

When I rode on the travois, I sat on a cushion of buffalo robes. Usually, two robes were spread over the basket, then a third had a thong passing through three or four of the holes always found on the edge of a robe. When I had gotten in, this thong was drawn and tied, making a kind of sack, and I sat in the mouth (Fig. 119). This again was done to prevent the cold air from chilling my body.

Occupants of a Tent, Names and Relationship. The following are the names of the occupants of our tent. I will first give the native names, then the age and relationship of the individuals.

Small-ankle, Ica-tsi'kipic¹

Small = small of leg between ankle and calf

Strikes-many-women, Mia-ahú-diki'e

Women-many-he strikes

Bear's-tail, Naxpitsi'-úcié

Grizzly rump

Red-blossom, Oðakapaki'-hicic

Blossom red

Sioux-woman, Ita-hátsi-miac

His-arrow-long-woman

Wolf-chief, Tséca-matse-i'tsíc

Wolf -man -chief

Otter, Midápökec

Otter

Red-kettle, Midaxa-hiséc

-red

Full-heart, Nat-océcé, Nata, heart, and oce, filled (Goodbird translates this later as Full-house).

Flies-low, Mikaáha-nuwic, Flies-low, goes along (said of a bird whose habit it is to fly close to the ground).

Son-of-a-star, Awáhudixic, Name of an Arikara chief.

Small-ankle was fifty-nine years old.

Strikes-many-women and Red-blossom, were wives of Small-ankle, and full sisters. Red-blossom was about fifty years of age and Strikes-many-women about three years younger.

Bears-tail, thirty years old, was a son of Small-ankle and Corn-stalk,² a deceased wife of Small-ankle. Corn-stalk was a Crow woman

¹It will be noticed that Hidatsa proper names end in *c*, pronounced like *sh*, in English. It is almost equivalent to our custom of beginning a proper name with a capital letter. Thus, *máka* means a spring; but *Máhac* is Spring, a man's name.—G. L. W.

²The native word means the small extra stalk or sucker which often comes up beside the main stalk of a maize plant.

and was not related either to Red-blossom or Strikes-many-women. Corn-stalk died when Bear's-tail was about six years old.

Sioux-woman was the wife of Bear's-tail and was about four or five years older than her husband. Sioux-woman's father was a Dakota, who had married into the Arikara tribe. Her mother died but her father remained with the Arikara. In a battle with the Dakota her father was killed by his own people since they did not know he was a Dakota. Sioux-woman married an Arikara who left her; later, she married Bear's-tail.

Wolf-chief was the son of Small-ankle and Strikes-many-women. He was about twenty years old. He had been married about one year and his wife was two years younger than he.

Red-kettle was a boy about ten years of age, a son of Strikes-many-women and Small-ankle.

Full-house was a boy about seven years old, a son of Small-Ankle and Red-blossom.

Flies-low was about sixteen years of age and a son of Small-ankle and Red-blossom.

Son-of-a-star, my husband, was thirty-two years of age. This was the second year of our marriage. His father was Moccasin-string and his mother, Root. Son-of-a-star had an Arikara chief for a friend and called the Arikara, "father." When Son-of-a-star struck coup on an enemy and won an honor mark, the Arikara gave him the name of his Arikara friend, Awáhu-nakadá. Of this compound, *awáhu* is the name of a band of Arikara, and *nakadá* means "yellow" and refers to one having a light complexion and yellowish hair. In translating this name into Hidatsa, we translated it "Awáhu-dahic" which might be interpreted, "light complexioned Arikara" or "fair-skinned Arikara." It happened also that this Arikara chief had another name in his native language, which translated means, Son-of-a-star. When a census was made of the Indians on the Reservation, the interpreter, knowing that my husband was named after the Arikara chief and knowing that the chief's name was Son-of-a-star, translated this name into English as my husband's and he was so enrolled on the Agency books. This is how he came to be called Son-of-a star, but really his name was Awáhu-dahic, or Fair-skinned-Arikara.

I, Buffalo-bird-woman was thirty years of age. My mother, Wíá'-tic, or Want-to-be-a-woman, died when I was six years old. Wíá'-tic was a full sister of Red-blossom and Strikes-many-woman.

The Mandan Tent Tie. In setting up tents, the Hidatsa used a four-pole foundation. The great advantage in employing this method was

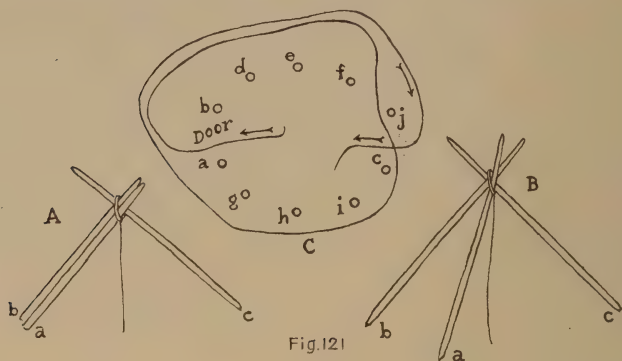


Fig. 121

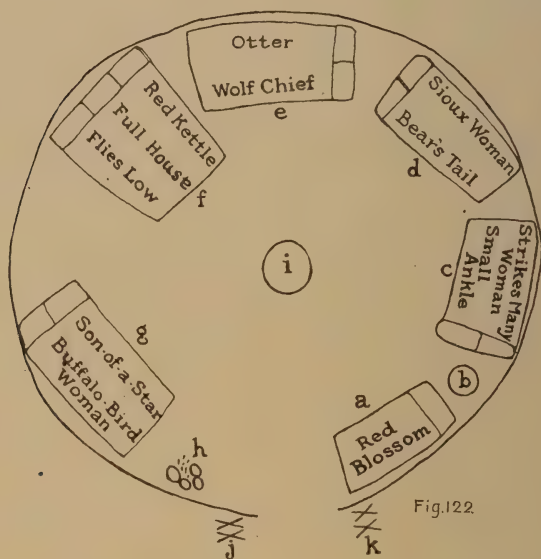


Fig. 122

Fig. 121. The Mandan Tipi: A, poles tied on the ground; B, the tripod foundation set up; C, the framework.

Fig. 122. Groundplan of Tent used on Tribal Hunt, showing Position of Beds, Fireplace, Household Utensils, etc.

that in ordinary weather it was unnecessary to draw a lariat around the top of the poles at the place where they converged to steady them and strengthen the tie. The foundation poles of an Hidatsa tent interlocked, as the fingers of the two hands may be made to interlock. The Mandan, however, used the Dakota tent tie which needs to be reinforced by a lariat drawn around the poles at the top. In Fig. 121 may be seen the Mandan

tent tie: in A, the three poles are tied together for the skeleton frame. To tie these poles, they are laid on the ground and fastened at the joint (Fig. 121). It will be observed that pole *c* projects beyond the others at the top. This is for the purpose of making the front of the tent slightly longer than the rear so that the smoke hole will be directly over the fire-place. Fig. 121*B* shows the skeleton frame after the tie has been made and the framework has been set up, while in Fig. 121*C* will be seen the groundplan of the completed framework. Fig. 121*C* (*a*, *b*, and *c*) presents the three foundation poles as already described, *a* resting upon *b* and *b* upon *c*. The remainder of the poles for the completed framework are then set up in order as shown in the following table:—

- a rests upon b
- b rests upon c
- d rests upon a and c
- e rests upon c and d
- f rests upon c and e
- g rests upon c (under d)
- h rests upon g and c
- i rests upon h and c
- j rests upon a and b

The tent cover is tied to the pole, *j*, in the same manner as in an Hidatsa tent. Then the pole is raised between *f* and *c* and the tent cover drawn around the frame.

It will be noted (Fig. 121*B*) that a lariat hangs from the tie. When all the poles but *j* have been set up in the framework, this lariat is drawn out from beneath the poles, *a* and *b*, and carried quite around the frame in such a manner as to draw the poles snugly together at the meeting point. The arrows in the diagram (Fig. 121*C*) indicate the direction in which the lariat is drawn. After it has been drawn once around the poles, the pole *j*, is raised and the lariat drawn around far enough to enclose this pole. Then it is drawn inside the framework, between *j* and *c* and anchored to a short post, or pin, driven into the ground. The owner of the tent draws the cover around and laces it in place. Finally, the two poles that hold the smoke flaps are raised.

Our Tent, Construction, and Poles. The buffalo skin tent used by our family during this hunt was of my own construction. The hides obtained during a summer hunt were used for tent skins, for parfleches, bags, and rawhide robes, but never for robes; while those obtained on the winter hunt were tanned for use as robes, bed coverlets, bedding, and winter moccasins. This was our old-time custom. I never knew of any who used winter hides for a tent cover.

The tent we carried with us on this hunt was of thirteen large cow-skins which my husband had brought in. I scraped the skins clean, taking off every little bit of flesh that still clung to them, dried them, removed the hair with an elkhorn scraper, oiled them, and hung them in the sun. To tan a skin I soaked it in water over night and the process was completed by evening of the next day. When the skins were tanned and ready, I cut them myself. Cutting tent skins was a sacred office and followed as a profession, so that not everyone in camp could cut the skins of a tent cover.

When the skins had been cut a party of about nine women was invited in to sew the tent for me. For this work, I gave them a feast consisting of one wooden bowl full of corn balls, one kettleful of boiled sweetcorn, one kettleful of boiled dried buffalo meat, one panful of biscuits, and one kettleful of coffee. In case a tent cutter was hired in addition, special food had to be prepared for her.

The tent poles were of pine [spruce] brought to the village by visiting Crow. In spite of the fact that they did not grow on our Reservation, we always had a great many of these poles. They lasted a long time. There were fifteen poles to our tent, including the two that upheld the smoke hole flaps. The tent door was of an old cloth blanket. On the hunt, the tent door was often made of a deerskin hung fur inside so that whenever anyone went out of the tent, the fur of the door skin fell smooth against the head and body. For this reason, the fur was hung head up.

In Fig. 122 is shown a diagram of the floor of our tent.

a, Red-blossom's bed; *b*, articles of food piled here for safety, also any meat brought in from the hunt, skins, etc.; *c*, bed of Small-ankle and Strikes-many-women; *d*, bed of Bear's-tail and Sioux-woman; *e*, bed of Wolf-chief and Otter; *f*, bed of Red-kettle, Full-house and Flies-low; *g*, bed of Son-of-a-star and Buffalo-bird-woman; *h*, dishes, bowls, cups, spoons, and the like used at meals, piled here when not in use; *i*, fire-place, *j* and *k*, firewood.

Dr. Wilson adds:—

A study of the arrangement of the beds of the tent of the Small-ankle family and of that of the arrangement of the beds in the earth-lodge as shown by Goodbird's diagram, reveals quite a marked contrast in the plan. It will be noticed that the arrangement of the beds in the tent gives precedence in age, beginning at the left, as one faces the door from within; while in the earth-lodge precedence is given, beginning at the right. Thus, in the tent the first bed on the left is Red-blossom's, the oldest of Small-ankle's two wives. Next is that of Strikes-many-women; then comes that of Bear's-tail, the oldest son; then of Wolf-chief, a younger son; then of Red-

kettle, bed of Buffalo-bird-woman and her husband. Buffalo-bird-woman is a daughter and of course, Son-of-a-star is not properly a son of the household.

Questions put to Buffalo-bird-woman did not reveal any strong realization of the idea of precedence. When asked why the beds were arranged in this manner, she simply replied that it was custom, or that it was always so, and some of her answers apparently more intelligible, were answers to some leading questions and I have therefore omitted them as being valueless. It will be noticed, however, that the beds are laid head to head and feet to feet, or heads and points, as the early English accounts of Eastern Indians put it. The exception is the bed of the three boys, Red-kettle, Full-house, and Flies-low, but this Buffalo-bird-woman explained was because there was not room enough to put all the beds lengthwise, and this particular one was turned with the feet toward the fire in order to make a little more floor space. I questioned her very carefully whether the beds were so put so that the children would have their feet to the fire, and was very careful not to put any leading question, but I could not draw out any such idea from her.

I could not draw from her which of Small-ankle's two wives was his favorite wife. But as a rule she spoke of Red-blossom's bed in those terms, while the bed of Strikes-many-women was usually called the bed of Small-ankle and Strikes-many-women. The same thing was observed when she spoke of the beds in the earth-lodge, but she spoke occasionally of Red-blossom's bed as that of Small-ankle and Red-blossom. In the earth-lodge diagram, the bed is spoken of by Goodbird as the bed of Small-ankle and Red-blossom. It will be noted in this diagram that the bed, *j*, belonged to Red-kettle and his wife, and is lower down in the scale than the bed, *h*, of Buffalo-bird-woman and her husband. Red-kettle was a younger brother of Buffalo-bird-woman, but here again, bed *i*, is that of Flies-low, a younger unmarried brother.

It will be seen that both in the diagram of the tent and in the diagram of the earth-lodge, the beds *f* and *l* respectively, belonging to young boys, are placed toward the lower end of the line, but not at the extremity. Now whether this was done for the purpose of protection to the children, I could not discover. It may be that bed, *j*, in the earth-lodge was erected after the marriage of Red-kettle and was put in this position merely because the occupants of the other beds already had their places determined, and had become accustomed to them.

The question of precedence and dignity in the family has been a difficult one for me to draw from Buffalo-bird-woman as it was so evident that her ideas of the rights and dignities in an Indian family differed so radically from mine, and because with her the sense of tribal community in a measure drowns out the question of rank, but it may also be that my own comparative ignorance of this subject may be the cause of my lack of success in getting at the desired information. It is very likely that further study may reveal what I have not yet been able to obtain.

But apparently the heads and points arrangement of the beds is not observed in the earth-lodge as in the tent. Goodbird speaks of the dislike of the Hidatsa of having the beds lie with the head toward the east, but Buffalo-bird-woman says that this custom was not always observed.

We placed our beds in the tent in the same manner as that described when my husband and I and five other couples went on a hunt afoot (Fig. 77). Between each bed and the fire, lay a log. The space between the log and the tent wall was filled with grass and the whole covered with

robes. The logs were laid in this position for two reasons: to keep the shape of the bed and to prevent the sparks from the fire from setting fire to the grass. These small logs were placed near the bed when wood was plentiful, especially if we expected to camp in the locality for some time. When we camped in the hills where wood was scarce, or if for any reason we were in a great hurry or it was inconvenient to obtain logs, we did not use them. In the diagram (Fig. 122), the boys' bed did not have these logs since it was turned around with the feet to the fire and there was no need of them. The bed was thus turned because there was not room enough for it to lie lengthwise in the tent.

Naming Goodbird. When Goodbird was ten days old, we called in Small-ankle to name him. It was a common custom to call in some older person, whom we esteemed highly, a friend of the family, or a medicine-man, to name the child. Such a person was presented with food and other gifts. In this case, nothing was presented to Small-ankle since he was a member of the family and related to the child.

Small-ankle picked my little son up in his arms, and said, "His name shall be Tsakáka-sakic." I do not know why he called him by that name, but perhaps he was thinking of the gods. We believed in thunderbirds. The thunder is the roar of the bird's voice and the lightning is the flash that comes when he opens his eyes. We Hidatsa worshiped the thunder spirits a great deal.

Descending the Missouri in Bull-Boats. Throughout the winter we camped at a place called Round Back, on Bark Creek, where there was no timber. We built neither cabins nor earth-lodges, but lived in tents and kept warm by means of the fires we built in the middle of the tents. Though we had not been successful in our hunt on the Yellowstone, we had plenty of meat for the winter, for we found buffalo three times before the winter was over and our men were successful each time.

Before we broke camp in the spring we held the ceremonies of the Goose Women society¹ and hung up meat. Most of the members of the tribe returned to the Yellowstone, but Small-ankle's and One-buffalo's family, two tents in all, went up the Missouri, where we found ten buffalo and made a killing.

After we had killed these buffalo, four more tents caught up with us, those of Strikes-back-bone, Old-bear, Long-wing and Spotted-horn. To each of these my father gave one whole buffalo skin for making bull-boats and one half a buffalo carcass. The meat was not dried. Besides

¹This series, vol. 11, 330-338.

the buffaloes, he had also killed three elks and Wolf-chief had killed two or three deer. The meat was brought into camp by dog and horse travois and was dried there.

In April, as soon as the ice broke on the river, and the ducks began to come north, we moved back to the Yellowstone, where we built new bull-boats. Our family already had one which they had brought from Like-a-fish-hook village. I had previously made two boats and now made two others, making five in all. One morning, when all was in readiness, we took the boats to the river. My husband and I loaded one with dried meat; we bound this boat firmly to another, which we entered. We placed as much dried meat in our own boat as we could safely carry, also a gun, and an ax. In the boat which was bound to ours, we put a much larger load of dried meat and hides, besides Small-ankle's son, Flies-low, a boy about seventeen years of age, and my little son, Goodbird. Flies-low carried the baby in his arms. A third boat, loaded to its utmost capacity with hides and dried meat was bound to the tail of Flies-low's boat.

My husband, Son-of-a-star, and myself paddled with two oars. Following us came my two mothers, Red-blossom and Strikes-many-women. They also had a boat bound to their own, at the tail of which Strikes-many-women had tied our tent poles so that they would float in the current. We had thrown away all our dog travois which we had brought from Like-a-fish-hook-village.

My father, Small-ankle, followed along on the opposite bank driving our horses. He did not drive them along close to the water, but back on the edge of the foothills. Sometimes, Wolf-chief went with him and helped him; sometimes, all the men accompanied him; especially, if they wanted to hunt. The rest traveled in their bull-boats. There were ten boats in the entire company, five tents beside our own: Spotted-horn, Guts, Old-bear, Strikes-back-bone, and One-buffalo, and our own tent. Spotted-horn and Old-bear came along on the bank, driving their ponies. Guts and One-buffalo and Strikes-back-bone each had boats. Spotted-horn's wife also came in a boat.

In Fig. 124 is a diagram drawn by Goodbird under my direction, giving the order of the boats and their loads.¹

Sometimes the waves became quite choppy from the wind or the current at some places was unusually swift. This was especially true

¹There seems to be a slight discrepancy between the number of boats in the diagram and the number enumerated by Buffalo-bird-woman. In such cases, the diagram should probably be given preference, as an error is much more likely to be made by the interpreter in the translation than in the drawing of the diagram.—G. L. W.

when we came to a point in the river where the wind was directly against the current. At such times we all drew together and grasped the gun-wales of each other's boats in our hands (Fig. 123). Boats thus bunched

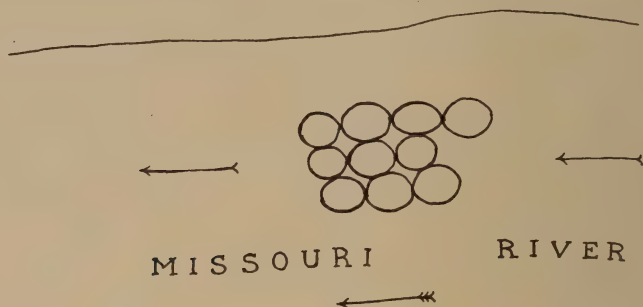


Fig. 123

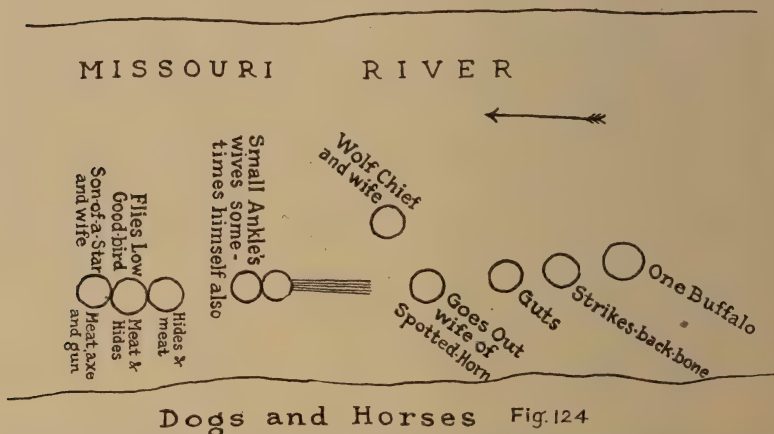


Fig. 123. Diagram showing Method of bunching Bull-Boats to prevent their Overturning in a Strong Current.

Fig. 124. Diagram showing the Order of Bull-Boats as they floated down the Missouri.

together could ride through a choppy current much more easily than a single boat. However, we did not tie these boats together, but merely drew them close with our hands. We loosed them again as soon as the dangerous part of the current was passed.

Goodbird is nearly Drowned. At the mouth of the Little Missouri River, we almost had a fatal accident. When we left our winter camp in the west, the grass was growing and the snow had disappeared, but as we came down the Missouri, a snowstorm came up very suddenly. A strong wind blew; as we rounded the bend at the Little Missouri River, the water was very rough and the waves tossed our boats around so that we were all frightened. Of course, we turned toward the shore, both my husband and I paddling vigorously. Usually, in paddling a bull-boat when a husband and wife are together, the wife kneels in front and paddles while the husband sits in the tail of the boat to balance it (p. 256). Coming down the Missouri, towing a load, was a more difficult operation, so both my husband and I paddled side by side in the boat. Suddenly, my husband stopped paddling and leaned over the side of the boat so far that I was nearly pitched over on his side. A bull-boat is a clumsy, tub-like craft, easily upset. My husband leaned over so far that the edge of the boat came clear down on his stomach. "He has dropped the child," I heard him cry, and saw him lift my baby into the boat. "*Iná*,"¹ I cried, but I had presence of mind enough not to drop my paddle. Indeed, we could not have reached shore without our paddles.

As I have already explained, Flies-low, my younger brother, was in the second boat, holding my son, Goodbird. It was customary when a young child cried, to loosen his cradle clothes. After my husband drew the child into the boat, I found that Goodbird's clothes had been so treated. Probably the child had become restless and Flies-low had loosened his clothes a little to give him room to move his limbs. This loosening of the cradle wrappings had made them buoyant, so that the baby floated on the water and my husband was able to rescue him.

We came ashore without any further mishap and camped in two tents. It began to rain, then the weather turned colder and a heavy snow began to fall and continued for four days. Many of the summer birds had already come north and when the storm was over we found some of them frozen to death.

My father, Small-ankle and Charging-enemy, who were driving the horses along the bank, did not stop to camp with us, but hurried on through the storm to Like-a-fish-hook village. They reached the village safely and drove the horses down into the timber. In the summer time, when the air is a little chill and one goes bathing in the river, it always seems warmer in the water than outside where the chilly wind

¹An exclamation of alarm.

strikes one. Down in the timber where we drove the horses there were some ponds, and the horses found it was warmer to stand in the ponds than to remain out in the snow and storm. They waded into the water and stood there. Of course, they had to come out after a while and as the wind was blowing very cold, they became chilled. Three of them sickened and died: a mule, a mare, and the shaggy horse. Another man in the village lost eight horses and still another, ten horses, in this same way. After the storm was over, our company re-embarked and paddled safely down the river to Like-a-fish-hook village.



Fig. 125. Flies-low in a Bull-Boat holding the Infant Goodbird in a Storm.

Goodbird was crying lustily when we drew him out of the water, but was not choking or strangling. I do not think that his face got into the water at all. I do not remember now whether Flies-low made any outcry when he dropped the infant into the river or not. I did not scold Flies-low. "I am not to blame," he said. "I tried to hold the baby, but that boat seemed to turn upside down and the baby fell out of my arms."

We knew this was true, so we said no unkind words to him. In Fig. 125 Goodbird has drawn a picture of Flies-low riding in the boat with Goodbird in his arms. The wavy lines on either side of the boat are the waves of the Missouri, and the dotted lines show how the boat rocked in the waves. This is not exaggerated. When a windstorm blows against the swift current of the Missouri, the waves become very high and are always dangerous.

WOLF-CHIEF'S HUNT WITH DOG AND TRAVOIS

In August 1911 and August 1915, Wolf-chief related the following account of a hunt made with dog and travois.

In the spring of 1866, when we were living in Like-a-fish-hook village and I was about seventeen years old, my father, Small-ankle, invited me to go with him to Little Knife Creek to hunt beaver. Little Knife Creek is a branch of the Knife River and is now called Spring Creek. Our five villages once stood at the mouth of Knife River.

Horses and their Equipment. We saddled two horses for mounts and in addition took three extra horses, one of them saddled with a flat saddle, as he was a buffalo horse, a racer. My father rode ahead and led one horse; I followed, also mounted, and drove the two remaining horses before me. Four of our horses bore frame saddles of horns of white-tailed deer. Such saddles were considered better than those of wood, since they did not gall the horse's back. My father was a good saddle maker and kept his saddles in good repair. Our extra horses were not loaded.

Tied to the rear of the saddle that Small-ankle rode were two steel traps with the chains tied together and wrapped in a piece of tent skin. He had rolled up two pieces of tent skin and had laid them behind my saddle and bound them to my saddle horn. My father and I each had two robes. I doubled one of my robes, flesh side up, and threw it over my saddle; my father did likewise. As we rode, we each wore a new robe, fur side in, belted about the body.

The Dog and Travois. We had one dog and travois and on the travois we carried a small hatchet, a hoe, and a small brass kettle, also some parched corn balls and pounded parched corn for mush. All these we wrapped up in some canvas we obtained from the soldiers.

The dog's name was I'ta-c'ipihě-dákapec, or Face-painted-black-killed. I had once owned a very gentle old dog and named this dog after him. The dog followed along in the rear. As we did not care to hurry, we did not travel very fast. We knew the place we were going to was only about forty miles from Like-a-fish-hook-village and we could reach it before sunset.¹

Weapons and Ammunition. My father had a muzzle-loading flint-lock and I had a short-barreled percussion rifle and my bow and arrows. My bow was of elm wood and I carried eighteen iron-headed and four blunt-headed arrows in my quiver. We still used arrows at that time.

¹He probably means sunset of the second day.—G. L. W.

We used our guns in battle with our enemies and to kill deer and antelope; but powder was scarce and not much used in hunting buffalo.

Snowblindness. It was in the month of March. There were two or three inches of snow on the ground and I remember that when our dog became thirsty he ate snow. The sun was shining brightly and the glare from the snow made me snowblind. When we camped that evening my eyes hurt frightfully. I felt as if sharp sticks were thrust into them.

In Camp. We reached the camping place and dismounted. My father untied our dog from the travois. He was a good dog and not very tired. As soon as the travois was removed he rolled in the snow, getting up and shaking his hide, but not barking. We also unloaded our horses, but did not hobble them. "They are tired and will not stray far," said my father. We had made about twenty miles that day.¹



Fig. 126. The Tent used during Wolf-chief's Hunt.

Setting up a Tent. Our horses attended to, my father began putting up the frame of our tent. He raised the travois, stayed it against a forked pole, and against these leaned other poles, which he brought from the timber. Fig. 126 is a sketch of the tent drawn by Goodbird after my description. It was about six feet high and I remember I had to stoop a little as I stood within by the fireplace. It was covered with three pieces of old tent skin, two at the front and one at the back. My father pierced holes in the skins with

his knife and through the holes drew thongs to lace the skins together. At the front of the tent, the edges of the upper skin did not meet, but the space thus left open was filled in by the netted thongs of the travois basket. The door was under the travois basket. Its covering was a saddle skin with the head cut off, hanging fur side in. As will be noted in the sketch, the tent was tied in front in two places.

Hunting Badgers. I had bound a handkerchief over my eyes and tried to help my father. "Make a fire," he said, "I want to see if I can get a badger. There is a prairie dog town near by, and badgers are commonly found near a prairie dog town." My eyes hurt me so that I

¹Wolf-chief apparently said that the first day's journey was forty miles (p. 299). It would seem that twenty miles is correct.—G. L. W.

was afraid to make the fire lest the glare make the pain worse. I went into the tent and lay face down on my saddle skins, with my dog beside me.

The Evening Meal. My father soon returned. "I have a fat badger," he said. He dressed it, made a fire, put the meat into our kettle and added some mint blossoms and chokecherry bark which he had gathered when he was hunting the badger. "They will give a fragrant smell to the mess," he said. He boiled the meat in water from the creek; when it was boiled, he threw out the water and added fresh water. Badger flesh is rather strong and must be parboiled. "Come and eat," said my father. "No," I answered, "my eyes hurt so that I don't think I can." He laid three short sticks before me and put one side with the ribs on them. I rose and ate heartily. "I will give you more if you want it," said my father. "It is pretty good," I said, and my father gave me another piece. I had never eaten badger meat before.

Watering the Horses. Because I was afraid the light would hurt my eyes, our fire was outside the tent, but as it was not dark yet, we ate inside. Then my father said, "I must water my horses." He went off to find them. After watering and hobbling them he returned and said, "I have seen no tracks of beaver. The creek is still covered with ice." He watered his horses at a place where the river was shallow and the current ran swiftly over the stones. Such places often remained unfrozen throughout the winter.

Interior Arrangement in the Tent. We went to bed, my father on the north side of the tent; I on the south. My dog slept at my side. Our saddles were laid against the tent wall. In this case, we did not use tent pins or stones to hold down the edge of the tent covering; it merely hung to the ground. The floor of our tent had been scraped free of snow with our hoe. We had brought the hoe with us to scrape the snow from our camping places. Our guns lay near us. "Put your gun beside you," my father had said to me. "If enemies fire at our tent, pay no attention to anything, but seize your gun." I laid my gun between myself and the skin covering of the tent with the barrel pointing in the same direction as my head. We had a small fire outside our tent. We carried with us one drinking cup.

Cooking Bones. We remained at this place all the next day. My father went afoot up the river to look for game. He found a pile of bones left by a party who had killed buffalo; and brought back as many of them as he could carry, as they were fresh and had not spoiled in the cold weather. He brought them for the bone grease (marrow). I do not

know whether he carried them in his arms or on his back. My eyes hurt so that I did not see them. "There are the remains of a Sioux camp not far away," said my father. "I found these bones there. They must have killed a great many buffalo since they left these bones lying on the ground." He went outside the tent and pounded the bones with our hatchet (small ax) and cut them up. "I have found a great deal of grease," he said. He meant, of course, that the bones were rich in grease. "A short distance from here, I found something very good to eat," my father said, as he showed me some kind of a mushroom which we call *mída etaně"pa*, from *mída*, wood, and *etaně"pa*, navel.

Mushrooms. After taking out the bones, my father put the mushrooms in the broth and boiled them. They were very good and tasted something like squash. I had never eaten them before and never since then. I do not know whether my father learned to eat them from white men or Indians but I do not think he learned of their use from white men.

Treatment for Eyes. My eyes hurt for three days. My father dropped some gunpowder in my eyes to cool them. Snowblindness sometimes turns the eyeball white. "If after you are well," said Small-ankle, "we find a white spot on your eyeball we will chew a piece of straight sage leaf mixed with charcoal and slip it into the eye. This will remove the white spot." I have heard of this remedy from other members of our tribe. Wolf-grass once told me, "I once accidentally whipped my horse over the eye when chasing a buffalo. I chewed sage and charcoal and spit it into his eye. The horse shut his eye and shook his head. I repeated this three times. The white spot on my horse's eye will never appear again." My father was familiar with this remedy. The gunpowder hurt my eyes a little, but felt cool, nevertheless. My father wet a little on his palm, I lay on my back and opened my eyes and he dropped a little of the wet gunpowder on my eyeball.

Capturing and Eating Porcupines. We stayed in this camp for three days and then moved up the river about fifteen miles, to some small timber in a coulée. As we approached the timber I saw something move and called to my father, "What is that ahead of us?" "A porcupine," he answered. I gradually raised my head, and sure enough, a porcupine was running toward the timber. It was going rather fast. "Let us camp here," said my father, "and we will have porcupine for supper." We dismounted. My father cut a stick and killed the porcupine. When a porcupine is frightened he tries to hide in the bushes. My father struck the porcupine on the head; he dragged the animal to camp, holding it by a foreleg to avoid the spines. "Make a fire and burn off all the hairs and quills, and we will eat the skin," he said.

I built a fire and held the porcupine over the coals. When the quills were all singed I scraped them off with a stick. I opened the belly and skinned the animal, leaving all the fat and some of the meat on the skin. I took off the skin and fats and adhering flesh, but without any bones clinging to it. I roasted this fat skin. I cut a green stick forked at one end in three tines like a white man's fork. On these, I laid the porcupine skin and held it over the fire. After the entrails were removed the rest of the carcass was broiled. While I was broiling the porcupine skin my father said to me, "I saw another porcupine in an old cave in a bear's den. I think it will be easy to dig him out." He took a hoe, went down to the den, and built a fire to thaw out the ground. While he was doing this, I called out to him, "This fat skin is done." The porcupine skin had been taken off in two pieces, one piece from each side; but I had broiled only one piece which I laid on the grass. It was very good, quite fat and very tasty. After supper, we went out for the other porcupine. My father dug and I helped him. We dug about six feet. Then my father looked into the hole and pushed a long stick into it. "It is still a long way in," he said, "but I think you can crawl in and get the porcupine. Bring one of those ropes we used for tying our horses." I brought two thong lariats. He tied one of the lariats to my foot. "Creep in," he said, "and when you touch the porcupine try to tie its two hind legs with the other lariat. As soon as you have done this, shake your foot, and I will draw you out by the lariat while you crawl backwards on your elbows."

I took the rope and crept in for some distance, but did not see the porcupine. It was very dark in the den. I began to perspire. I crept on, but the air was exhausted and I could not breathe. I went a little farther and touched the bed of the porcupine. Feeling around carefully with my fingers, I touched the porcupine. My breath was coming in long-drawn gasps. I felt around for one of its legs, tied the second lariat to it, and shook my foot. I tried to crawl backwards on my elbows, but felt very weak. My father pulled and I came out. The porcupine had taken possession of an old bear's den that had partly caved in and the roof was so low that I could hardly thrust my head under, but the hole was wide enough for my body. "What is the matter?" cried my father, when he saw me. "I do not know," I answered. "My breath is all gone." My father brought some snow and said to me, "Rub this over your face and head." I did so and felt better. However, I was very weak and lay down on the side of the hill and thought to myself, "I nearly died in that hole." Meanwhile, my father pulled on the rope tied to the porcupine's foot, but he could not pull the porcupine out. "Can you help me?" he

asked. "No," I answered, "I am too weak." I rubbed some more snow on my head and face and felt somewhat stronger. My father and I seized the lariat, the porcupine's hold was broken, and we pulled him out slowly. I think he had found something to hold on to and that was why my father could not pull him loose at first. Small-ankle killed the porcupine with a blow on its head with a stick. I had tied the lariat to the porcupine's right foot. I knew that the porcupine would not fight when attacked and for that reason I was not afraid. When I went into the porcupine's den I wore mittens and when I felt around for the porcupine I slipped my hands palm downward flat on the ground. I knew that a porcupine when disturbed would shake its tail, but the animal always does this with an upward motion, never downward or side to side. Sometimes when a porcupine shakes its tail the quills fly out.

When we returned from the porcupine's den my father burned the bristles and hair from the animal and skinned it, just as I had done with the first one. He cut the meat from the sides and legs in strips, tied them together, put a pole over the fire, and slung the strips over it to smoke them. The meat from one whole porcupine and of half the other was thus smoked. My father boiled half of one porcupine. The next morning my father boiled the smoked meat and I found that smoking it had made it sweeter.

The Smoke Offering. From this camp we went on about fifteen miles and camped in some box elder timber over night. The next morning we continued up the river and turned north. Now my father became snowblind. "My eyes have been snowblinded," he said, "look to the north and you will see some high ground called Women's Butchering Trap." North of that is a lake where one can always find buffalo. We will camp there. We Hidatsa believe that buffalo have their home in this lake." We arrived at the hill called "Women's Butchering Trap" and climbed it. "Look to the northwest," said my father, "Do you see any big timber?" "Yes," I answered, "about twenty miles away." "That is it," he said, "we call the timber, Facing-across-the-river. Now I want to smoke."

My father dismounted, filled his pipe, and smoked, offering some of the smoke to all the gods of the world. Holding the pipestem at an upward angle and towards the northwest, the direction in which we were going, he cried: "O, you gods in this world, smoke. I want to have good luck in everything in this hunt." Then he ate.

The Buffalo Hunt. We mounted our horses again. Below, we saw some tracks in the snow. When we came up to them we found they were

buffalo tracks. "There are buffalo tracks here, father," I called. "Good," he said, "the tracks lead in the direction of the lake." Take your race horse and chase the buffalo." I took off my robe. I wore a coat of white blanket cloth with black stripes. "I will use my arrows," I said. "No," said my father, "take your gun. These are a bull's tracks and a bull has a tough hide." "All right," I answered and took my gun.

I soon saw the bull lying beside the lake. He fled and I followed. The bull floundered along in the rushes and snow, breaking through the thin ice, but running very fast, so that my horse gave out. I turned and spied three more buffaloes on the east side of the lake. I was now on the south side of the lake. I returned, glad to leave the rushes and the snow, and met my father, and said to him, "My horse has given out and that bull is also mired in the snow." "What kind of a bull was it?" asked my father. "A sharp horn," I answered. "They are always strong," said my father, "he will get out all right." I told my father of the three buffaloes I had just seen on the east side. He said, "I want you to chase those three buffaloes; I want you to kill a fat one. At this time of the year the fat ones have a patch of black hair over the eyes for the fat under the skin makes the animal shed earlier and the new-grown hair is very black. Also, there is a black stripe on the highest point of the spine over the shoulders and there is a little black hair around the horns."

"All right," I said. I went on and found the buffaloes lying down. As I approached they jumped up and ran. I followed, picking out one with the black spots as my father had described; the hair of the others was a dull brown in the spots. I aimed at this one, but as I had never used a gun before, the barrel shook in my hand and I felt sure I could not hit the buffalo. Nevertheless, I rode close to the side of the animal and fired. I guess I hit the buffalo in the leg, for he kicked. I tried to load my gun, but could not with my horse running, for I spilled my powder. I slowed down and loaded my gun, ramming the bullet home with a little piece of cloth. I gave chase a second time and saw that the buffalo was a little lame. I fired; he kicked again, but went right on running. I stopped to load again, then I drove the buffalo in a circle around toward the camp. My father saw us coming; I heard a shot and when I came up saw my father on one side of the hill, waving his gun and calling, "This is the way a man shoots. What have you been doing?" he was making fun of me.

The next day we started back to Spring Creek. The ice on the river was not yet broken and though we had seen some beaver dams we had

killed no beavers. However, we discovered a herd of five buffalo bulls on our way. "I want to give chase to those buffaloes," I said to Small-ankle. "Good," he answered, "but you had better take your gun. I fear you are hardly strong enough in your arm to use arrows." "Yes I am," I said. "Have you not heard that I have already killed a grown buffalo with an arrow?" "I think you should take your gun," said my father, "but use your arrows if you will. Now let me tell you again how to judge if one of the bulls is fat. As you come close, observe if the hair along the spine and just back of the eyes is black. Those so marked are the fat ones."

The reason of this is that the black hair marked where the buffalo had begun to shed his hair. Under the black spots were layers of fat that in these places made the buffalo shed a little earlier than his leaner fellows. But such a sign was of value only in the spring and was found only on bulls, not on cows.

I mounted my horse, a large gray one without saddle. I wore a coat made of a white wool blanket, bound about with a belt. I tied my quiver to the left side of my belt, and gave chase to the herd. Observing one with the signs my father had described, I singled him out, and soon caught up with him. Coming very close and knowing just where to shoot, I released my arrow. It sunk in half its length. I followed a little way until I saw blood gush out of the buffalo's mouth. Then I reined in.

The buffalo slowed down, stopped, and stood swaying. More blood flowed from his mouth and his fore legs bent under him. He tried to rise, sank again; tried once more to rise, but could not, and fell over on his side, dead.

He lay on his left side, with my arrow sticking out of his right. I thought to get my arrow, then said to myself, "No, I will bring my father here and show him how I can kill a buffalo with an arrow." So I mounted again, for I had gotten down to get my arrow.

Small-ankle sat on a little hill awaiting me. "How has your hunt come out?" he called. It came into my mind to have a little fun with him. "Badly," I answered, "I did not kill one!" "I told you that you could not kill a buffalo with your arrows," he said. "You would not take a gun when I urged you."

I laughed and answered, "Mount your horse and come and see." I led his horse, both of us mounted; my father had covered his eyes, as they pained him greatly. Snowblindness was a common trouble with us in the spring.

We came to the dead buffalo. "There," I exclaimed, "see that!" "My father uncovered his eyes a little and saw the buffalo. He put his hand to his mouth in astonishment. "You have shot it just like a man," he cried. "Now sit down and rest yourself and I will dress the carcass for you. This is the fattest bull I ever saw." He knew the bull was fat from its looks.

Butchering. My father skinned the bull, cut out the meat for drying, and laid the pieces on the sod where the snow had melted and left the ground bare. When he had done, he opened the belly and pulled out the intestines and paunch. In the cavity of the body was now some warm blood.

"I want to drink some of this blood," said my father. He filled his joined palms and drank two or three times. "You do likewise, my son," he said to me. "If you are going to eat the fresh liver and kidneys and that part of the paunch"—(he meant the part that is filled with thin stuff like leaves)—"you should first drink a little blood. It will save you from getting sick in the stomach."

I drank some of the blood, but did not like it. "You need not drink much," said Small-ankle. "You have drunk enough to keep the raw liver from hurting you."

The Tent Collapses in a Snowstorm. We camped at night on a hill and Small-ankle made bone grease. A storm came up and it began to snow. "We must move our camp down into the timber," said my father. "Our tent may blow over up here." The next day we moved our tent down in a coulee out of the wind and pitched it in a place near a big tree where it was protected by some bushes. It snowed all day. In the evening it was still snowing, but we went back to our meat pile near our former camp on the hill to take our meat back to our tent. Snow was still falling when we went to bed. I slept that night on the west side with my head toward the rear of the tent. The tent door was toward the south.

Our tent poles were small and not heavy enough to support the weight of the snow. I do not know how it happened, but apparently the snow on the side of the hill above us on the west drifted and came down upon me. My father awoke during the night to find the tent giving way and weighted down with the snow. The space inside the tent was reduced almost to nothing. He sprang across and found me under the snow, unconscious. He carried me to the farther side of the tent, sang a mystery song, and felt my heart. Like one in a dream, I heard him singing. Gradually, my senses returned. "Are you alive again!" cried my father. "Yes," I answered, my breath coming in gasps, as I sat up.

My father held me in his arms, as I sat on the ground, but I was able to sit up right only by leaning my head against the tent wall. The wall was icy cold, but I could not sit up otherwise. "I once heard," said my father, "of a tent being covered with snow. The people inside hit the walls of the tent with their hands and kept the snow from crushing it to the ground." He struck the tent wall repeatedly at one side, driving back the snow and packing it; after a while he had quite a space cleared. "You sit here," my father said. I moved over to the side where he had been working and he attacked the other side of the tent. At last, he had the tent restored to something like its normal shape.

I suppose I had been pressed down with the snow and was dead (fainted). As I have said, my father felt with his hand and felt my heart beat. He put water on my face and sang mystery songs until I revived. In the meantime my dog was running around over head.

"Father, I am hungry," I said. "I don't wonder," answered my father, "I think we have been here for three days. You ought to be hungry." He took two boiled buffalo tongues and one buffalo heart from a bag which lay on his pillow. We ate all the meat, for we were hungry. I felt my face and hands and said, "Father, I am well now." "Good," he said, "Let us try to find our hoe. I laid it just outside the door." We both worked at the door, pushing and shaking it until finally my father worked his way out and I heard him cry, "I have found it." I still felt very weak. All this time our breath froze as soon as it struck the cold air. There was no fire in the tent and I found that the hood that formed part of my coat was torn off at the neck. Doubtless, it had frozen to the ground and had been torn off when my father pulled me from my bed. My father had just found the hoe when suddenly we saw light above. Before this it had been quite dark. It looked as if the snow up there was not very deep. "I will try to push a hole through that place," said my father. He pulled a buck brush from his bed and tearing off a piece of his shirt, he bound several of the buck brush sticks together, reached up, and punched a hole in the snow above the smoke hole of the skin tent. We saw that it was daylight and the snow was still falling. The air coming down the smoke hole made me chilly.

My father now dug with the hoe into the snow at the door and as he dug I kept shoving the snow back into the lodge. We both wore our mittens, but my father covered his head with a saddle skin set over his hair like a cap. He cut holes in the edges of the saddle skin where they overlapped and stuck a stick through to skewer the edges together. This saddle skin cap prevented the snow from falling on his bare head, as he

was digging a tunnel through the snowdrift. He had tunneled for a distance of about twelve feet when he said, "My knees are very cold, will you try to help me?" I put on his cap (Fig. 127) and went to work. I threw the loose snow back into the lodge, quite filling it. We continued to work in this manner and finally I broke through the drift about eighteen feet from the tent. We had worked on our knees and dug a tunnel high enough to kneel in; the snow was at least ten feet deep. The mouth of the tunnel was about eighteen feet from the lodge and breast high from the ground, for we found that we had not tunneled along on top of the ground at all.

When I finally reached the outer air I found that the day was quite pleasant and not very cold. We had noticed geese going northwest before the storm came up. As my feet touched the ground, I shouted "Good," and as my father appeared, I cried out to him, "I see only the head and shoulders of our race horse." "That is unfortunate," answered my father, "perhaps the other horses have perished."

Small-ankle and I dug the horse out with our hoe. When we had dug the snow away from one side, he fell over, as he was unable to stand when no longer supported by it. We built a fire to warm the horse. He bent his legs and stretched them. I gathered some dry grass from the side of the hill and fed him. We also warmed the saddle skin my father had used as a hood and rubbed the horse's legs with it. "Try to rise," my father said to the horse, "and I will make an offering of red cloth that you can wear as a necklace. I will do this as soon as we return to the village." We worked over the horse a long while. Finally, I seized him by the tail while my father held his head and together we raised him to his feet. He fell again and I raised him, whipping him with a stick. He got up weakly. I brought him more grass; he ate anything, biting off even the tops of sticks. I walked him about. My father hunted around and finally spied our other four horses in a bunch in the hills to the north.

When I had tunneled through the snow my dog met me at the mouth of the tunnel. While we were still in the tent, my father and I heard a noise overhead which we thought made by a ghost, but it was only my dog on the snowdrift above us.

We remained at this spot the rest of that day and through the night, digging the tunnel out to the ground, to reach our tent. We cut the



Fig. 127. An Improvised Cap worn as Protection against Snow.

sinews used to sew the tent skins together and in this way removed the cover, piece by piece. We abandoned the poles.

The Return Trip. We set out on our return trip the next day, loading our meat on two of our horses. Our fast horse, the gray, we did not load. We never put a heavy burden on a race horse or hunter, for fear of injuring its speed. Of meat fit for drying, we Indians reckoned there were twelve pieces or cuts to a side. A cow could be loaded on a pony, even with a few more pieces added. We divided our meat between two horses to make the loads lighter. However, we packed some firewood on the top of each load, since we knew we could get no more fuel until we reached the Missouri.

The snow was very deep so that we had to stop and camp after we had proceeded about a mile. The following day was quite warm, so we made our way along the tops of hills and rising ground, for the coulées were filled deep with drifted snow. Even then, we often found it necessary to dig a trail through the snow with our hoe. However, as the day wore on, the snow melted, filling the coulées with water, making it more and more difficult to travel. Finally, about sunset, we reached our village, footsore and weary.

The Feast. All our relations now came into our lodge, and my mother cut off pieces of the meat we brought and gave some to each. At that time there were four white men living in the village who had married into our tribe. One was named, Mr. Pákinaw;¹ another was Mr. Smith's father; a third, was named Pete Bóshan; a fourth was named Malóly. These men were of the people our folk call the Big Knives. They said "sacre-e-e" whenever they got angry.

My father called these four white men to his lodge. My mother had boiled a good part of the buffalo meat and my father gave a portion to each of the white men, much more in fact than they were able to eat. What they could not eat, they took home with them. We did not like to have any one to whom we had given food, fail to eat it, or at least take the uneaten portion home. If our gift or any part of it was left we said, "He does not like it!" and it made us feel bad.

In those days we did not use much coffee, but drank the broth our meat was boiled in for a hot drink. We had learned what coffee was and we were fond of it; but it was very hard to get and what little was brought into the village, the traders usually kept for themselves.

¹Spelling of names is phonetic, after Wolf-chief's pronunciation.—G. L. W.

One of the four white men was a trader. They left the lodge as I have said, taking their uneaten meat with them; but they soon returned, each with a present of a little package of coffee done up in a cloth, and a bit of sugar, also in a cloth.

The coffee was green. We parched some of it that same day. When parched we put it in a corn mortar and pounded it fine and boiled it in a copper kettle. Later we got kettles of brass, and after them kettles of iron.

We drank the boiled coffee liquor with the sugar. The grounds that were left we dried carefully, parched them in a pan a second time, and boiled them again. This second boiling tasted almost as good as the first. ¶ We did thus because coffee was then so hard to get, and so expensive.

TWO NEW BOOKS
ON
ANTHROPOLOGY

PUBLISHED BY
THE AMERICAN MUSEUM OF NATURAL HISTORY

LOCKE, L. L. THE ANCIENT QUIPU OR PERUVIAN KNOT RECORD

84 pages of text, 59 plates, 17 text figures, 1 map. R. 8vo., blue cloth.

Mr. Locke clearly demonstrates that the quipu was used for numerical records and points out the impossibility of recording history and folklore by this means, as early historians believed. Mr. Locke has succeeded in locating forty-nine quipus, of which forty-two are in the collections of The American Museum. Price, \$3.00.

SULLIVAN, LOUIS R. ESSENTIALS OF ANTHROPOMETRY

72 pages, 15 illustrations. Black leatherette, flexible, pocket size.

Dr. Sullivan has prepared this small book for the assistance of field workers in physical anthropology. Price, \$.75.

